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Pamphlet 107

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UBERCULOSIS DISPENSARY ETHOD AND PROCEDURE

PREPARED FOR
NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS

BY
F. ELISABETH CROWELL
Executive Secretary of the New York Association of Tuberculosis Clinics

With an Introduction by
JAMES ALEXANDER MILLER, M.D.

105 East 22nd Street
NEW YORK
October, 1916

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TUBERCULOSIS DISPENSARY METHOD AND PROCEDURE

Introduction

The tuberculosis dispensary occupies a pivotal position in the whole anti-tuberculosis campaign. It is in intimate contact with all other activities in this field and while the interdependence of all factors is well recognized, it is scarcely too much to say that the dispensary is the one indispensable link in the chain and that a fairly accurate gauge of the successful organization of the anti-tuberculosis forces in a community of any size may be found in the efficiency of its dispensary service.

In wise recognition of this fact, The National Association for the Study and Prevention of Tuberculosis has authorized the preparation and publication of this pamphlet as a systematic presentation of the experience which the past decade or more has furnished. The main objects of such a review would be to stimulate new interest in dispensary problems and to make available for all dispensaries, whether new or old, the facts of accumulated experience, in order that they may avoid the mistakes of others, and that the solution of many of the problems which are common to the organization and administration of all such dispensaries may be facilitated. These objects have been attained to an unusual degree in this study.

The Association is fortunate in securing Miss Crowell's services for this important task. Trained as a nurse, her natural inclination has always been in the direction of social problems and during the past eight years as Executive Secretary of the Association of Tuberculosis Clinics of New York City, she has gained a most unusual experience in practical tuberculosis problems. This experience has been by no means obtained merely through executive office administration, for by constant personal touch with physicians, nurses and social workers, Miss Crowell has secured at first hand an intimate knowledge of their work and of their point of view, which has saved her from the danger of the theoretical detachment from concrete problems so often developed in executive positions. It is not too much to say that whatever success has attended

tuberculosis dispensary work in New York City is due to a very large degree to Miss Crowell's efforts and that she speaks with authority, as far as New York is concerned, is evidenced by the remarkable degree to which she enjoys the confidence of both medical and lay workers in that city.

It is possible that her pamphlet may be criticised as founded too largely upon New York City experience. That it is to a considerable degree so based, is evident to the reader, but there is, however, no lack of knowledge of special conditions elsewhere and as the conditions in all large communities are in many respects similar if not identical, the experience of New York, divided as it is into a series of many small communities by its district system of dispensaries, is probably as fair a general basis for such a study as any which exists in this country.

One does feel the lack of adequate treatment of one phase of the situation, however, and that is the problem of rural communities. As Miss Crowell states this is really not a dispensary problem, for in the ordinary sense dispensaries cannot exist in districts with a widely separated population. The need, however, is very great in such districts for the same kind of service which the tuberculosis dispensary performs for the city and suggestions for a proper organization to meet these special rural conditions would be most valuable and timely. It is perhaps too much to look for this in a discussion of dispensaries as we ordinarily understand the scope of such institutions, and valuable as such a contribution would be, it would, perhaps, hardly be fair to expect Miss Crowell to include this phase of the subject in her study.

The chapters devoted to nursing and the work among children will probably be as helpful and stimulating as any in this book. As we slowly progress toward a more perfect understanding of tuberculosis as it exists in large cities, it becomes more and more apparent that in spite of all facilities as yet known to medical science, the results of treatment are far from satisfactory; indeed, they are most disappointing to the high hopes of a decade ago. In dispensary work, therefore, we have come to emphasize the fact that preventive measures among the well are more productive of definite results than all efforts for the cure of patients with frank pulmonary tuberculosis. Nowhere is this more evident than in the work among the children. To shield them from infection, to train their growing minds and bodies along lines of healthful living, to discover cases of latent disease or to find out those constitutionally predisposed to such disease and to save them by proper care and environment,— these are some of the objects and accomplishments of special tuberculosis clinics for children. The ways and means by which they may be attained are well described by Miss Crowell and are deserving of very general attention and study, for the solution of the tuberculosis problem lies not with the present, but with the future generations, and the best cure for the adult of to-morrow is the prevention of infection in the child of to-day.

In this work with children and with all the other preventive activities of tuberculosis dispensaries, the visiting nurse is the salient feature of the organization. Miss Crowell approaches this phase of her discussion with an intelligent sympathy with the manifold difficulties and perplexities involved, but also with a critical analysis which her unusual opportunity to observe and study tuberculosis nursing at close range and under many diverse conditions should make peculiarly valuable. With the rapid increase in visiting nursing for the control of various social diseases, there has inevitably developed varying ideas as to the requirements of such service, the limitations of its sphere of activity and the duties and responsibilities involved in that borderland where the practice of medicine and social service come in intimate contact and should fuse into an harmonious whole if the best results are to be obtained. It is too much to expect that all will ever agree on many of the interesting and debatable details here involved, but in this pamphlet we have presented in clear and vigorous fashion the results of valuable experience which may do not a little to help clear up the haze in which many physicians, nurses and social workers regard their mutual relationships. If this alone should be the result, the publication of this study would have fully justified itself.

Her sincere appreciation of social problems probably explains one striking impression which is left after the study of this pamphlet of Miss Crowell's. I refer to the human interest which is sustained to such a large degree throughout the whole book in spite of the inevitably large share that statistical and critical analysis has had to play in its preparation. This result has been attained with no mean skill and adds peculiarly to the pleasure afforded the reader and, therefore, cannot fail to appeal to many who are perhaps surfeited with statistical studies.

Taken all in all, Miss Crowell has been extraordinarily successful in presenting her facts in an orderly and convincing way, in demonstrating the possibilities of systematic co-ordination in tuberculosis dispensaries as well as the methods by which it may be obtained, and last but not least, by attacking real, live but debatable issues with such a firm hand that renewed interest in them is awakened and a clearer vision of their possible settlement afforded. A careful study of this pamphlet will well repay all those who are in active service in the field of tuberculosis, whether they be physicians, nurses, social workers or laymen.

JAMES ALEXANDER MILLER.

New York,
Sept. 1, 1916.

CHAPTER I

The Tuberculosis Dispensary

Development of special tuberculosis dispensaries — reason for undertaking present study — method and scope of inquiry — information received representative of entire country and all types of institutions.

Special clinics for the treatment of tuberculosis were practically non-existent a decade ago. Actually, in 1904 there were fifteen such clinics in operation. To-day there are approximately five hundred. Then it was the pioneer's problem to blaze a new trail. Primitive equipment and pioneer methods were recognized and thankfully accepted as the only thing possible of attainment at that time.

We have gone a long way since then. We have come to look askance at slipshod methods and to question the quality of work accomplished by such methods. Ideals of clinic work have become working realities in certain clinics where the combination of professional skill, unflagging interest in the tuberculosis problem, and adequate financial support, has existed. Standards of clinic work are being evolved from the accumulated experience of the past ten years and are being applied as a measuring rod for testing a clinic's efficiency.

Organization of a clinic's resources in physicians, in nurses and in relief funds has proved to be a most effective method of increasing facilities — of securing a larger output for the same expenditure of time and energy and money. Finally, we have extended our original conception of the clinic's function to include a variety of allied social activities, centering largely, as preventive work of most kinds must, in the needs of the child.

PURPOSE OF STUDY

The present study of tuberculosis dispensary work was undertaken by The National Association for the Study and Prevention of Tuberculosis chiefly for two objects: first, to ascertain the kind of work being done in various dispensaries throughout the country; and second, to establish definite standards to which such clinic work should conform. As the propaganda for tuberculosis prevention and control has spread in ever widening circles, the demand for specialized facilities for the treatment of tuberculosis has increased far in excess of the available supply. The

mushroom growth of tuberculosis dispensaries in the past decade has afforded little opportunity for introspection. They have sprung up over night and have continued as best they may. Some with the backing of wealthy institutions of the highest professional standing have been able to achieve a steadily increasing degree of efficiency. Others, started originally as experiments by groups of private individuals, have demonstrated their usefulness and have been taken over by the municipality, thus insuring their financial support. Still others, with meager equipment and inadequate support, depending on volunteer service entirely, have dragged along a precarious existence, fluctuating with the ebb and flow of interest and enthusiasm of the private individuals in the community.

Method and Scope of Inquiry.

For the purposes of this study, in July 1914, in co-operation with the Committee on Out Patient Work of the American Hospital Association, about 200 questionnaires were sent out to a selected list of representative clinics. Over one-half responded to the request for information. Of these a few were omitted from the study because of incompleteness.

The limitations of the questionnaire method have been fully recognized in the attempt to interpret the information furnished. Indefinite replies were classified as "not satisfactory" and omitted from the final summary. Questionnaires containing apparently contradictory statements were returned to the writers with a request for further explanation. When given answers showed on their face that the writer had misinterpreted the questions asked, the questionnaire was returned with a detailed explanation of the particular points upon which information was desired.

Dispensaries Studied.

When this checking up process was completed there finally remained adequate information covering 116 special dispensaries for tuberculosis, which may be considered fairly representative of conditions throughout the country. Twenty-four states are covered, from Connecticut to California; from Maine to Georgia. Sixty-four different cities and towns are represented, eleven * of which are maintaining more than one dispensary. In only four * of these cities is the work of the several tuberculosis dispensaries co-ordinated through some organized scheme. Complete records of dispensary work are available for five principal cities, Chicago, Cleveland, New York, Atlanta and Richmond. The two extremes are represented by the splendidly organized machinery available for dispensary work in the two largest cities in the country, New York and Chicago, and by a small dispensary maintained by a private association in a little town of Massachusetts, having less than 15,000

* San Francisco has been added to the list of cities having its tuberculosis dispensary work co-ordinated on a district basis since this study was started.

inhabitants. The smallest town supporting a dispensary was in Maine, having less than 10,000 inhabitants, which boasted 96 patients with a clinic attendance of 554 patients in one year.

Statistical Data.

The oldest of the dispensaries included in the study is connected with Rush Hospital for Consumptives in Philadelphia, which was established in 1891. The Presbyterian Hospital in New York followed three years later with a specially organized class for the treatment of tuberculosis in its out-patient department, to be followed in 1899 by the Boston Dispensary. Seven of these dispensaries were organized in 1903 and 1904. According to the date of their organization, the others are fairly evenly distributed from 1906 to the present year. Eight were organized in 1914 and were therefore unable to give certain statistics relating to attendance and nurses' work.

Of these 116 clinics 47.4 per cent. are now supported by municipalities. Thirty-three per cent. are being maintained by private associations; 16 per cent. are supported by institutions; 3½ per cent. are ostensibly maintained by private associations or institutions, but are in receipt of a certain amount of public monies.

CLASSIFICATION OF INFORMATION

The information collected in this study may be roughly classified under the following heads:

1. *General description,* including form of organization, i. e., whether a separate institution, solely for the treatment of tuberculosis, or a part of a general dispensary or hospital; its relation to other special tuberculosis dispensaries in the community, i. e., whether co-ordinated with them through a formal scheme of organization or not; and whether evening sessions are held.

2. *Administration,* including detailed information regarding the number of physicians, their salary and amount of service; record system, treatment of children and method in vogue for checking clinic attendance.

3. *Details of cost,* distributed as follows: Salaries, supplies, equipment, drugs, other expenditures and the assessment of fees for clinic visits or for medicine.

4. *Clinical methods,* including statistics of attendance; proportion of diagnosed cases; proportion of these having positive sputum; use of tuberculin for the purposes of diagnosis or therapeutic treatment; X-ray facilities; whether laboratory examinations were made by a local or state department of health or by the institution itself; method of supervising the work of clinic physicians; the length of time patients are held pending diagnosis; whether separate examining rooms are available for men and women; whether routine examination of other members of the family

s made; statistics regarding institutional care for clinic patients; whether or not educational literature is distributed.

5. *Home care,* including statistics regarding number and kind of workers; visits made in patients' homes; whether physicians are provided for visiting patients in their homes; the amount of co-operation existing between the clinic and institutions for the treatment of tuberculosis; and the giving of relief.

6. *Functions:* In conclusion each dispensary was requested to give its opinion as to the relative importance of the recognized functions of a tuberculosis dispensary, which were stated as follows:

1. To diagnose doubtful cases.
2. To serve as a clearing house for hospitals and sanatoria.
3. To supervise patients in their homes.
4. To educate patients and their families.
5. To administer medical relief.

CHAPTER II

Organization and Administration

Comparison of two types of dispensaries — (independent and divisions of general out-patient departments) as to cost, staff, medical work, records — co-ordination of several dispensaries in one community — New York's Association of Tuberculosis Clinics — advantages and disadvantages of private and municipal control — relation of anti-tuberculosis association to dispensary — Women's Auxiliaries.

According to the form of organization, tuberculosis dispensaries fall into two classes, (1), Independent institutions organized for the sole purpose of treating tuberculosis, (2), Separate classes or divisions of out-patient departments of general hospitals.

Of the 116 dispensaries included in this study, 83 or 71½ percent belong in the former class, the remaining 33 or 28½ percent in the latter. In the former group we have included one dispensary which is part of a hospital for the treatment of consumptives. Each form of organization has its advantages and its disadvantages.

The independently organized tuberculosis dispensary is a law unto itself with one object in view — to facilitate in every possible manner the handling of one particular disease. The hours it is open, the methods which are followed, the record system in vogue, are determined by the needs of the particular class of patients it aims to serve. The cost of maintaining such a dispensary is naturally greater because it must meet all of its own overhead charges, such as rent, fuel, light and service.

The dispensary which is run in conjunction with an established institution escapes these overhead charges, which are carried by the institution itself, and are increased very slightly, if at all, by the addition of a special department.

On the other hand, it is very apt to happen that in the general hospital out-patient department the vital interest in the conduct and development of tuberculosis work lies chiefly with the physician and nurse who are actually doing this work. The superintendent of the institution and the board of managers are being harassed by every department of the general dispensary for recognition and support of their particular needs. Tuberculosis is one with the surgical department, the pediatrics depart-

ient, the genito-urinary department, the gynecological department, all f which are clamoring for more space, more doctors, more money. The adependent dispensary has only one problem to consider and can make ts plea for increased facilities to a group who are interested particularly n the one thing which it is trying to do.

STAFF: ADEQUATE, PAID, SUPERVISED

The efficiency with which a tuberculosis dispensary fulfills its several functions of diagnosis, medical treatment, home supervision, distribution to institutions, and education, will depend first of all upon an adequate staff of physicians and nurses. This means a sufficient number of physicians to give careful attention to each individual patient visiting the dispensary and when necessary to visit in their homes patients awaiting admission to hospitals and cases unable to attend the dispensary because of the recrudescence of temporarily acute symptoms. It also means a sufficient number of nurses to assist the physicians during clinic hours, to visit as frequently as may be necessary the homes of the patients and to give temporary nursing care to such as may become "bed cases."

General vs. Special Clinics.

One of the strongest arguments used for taking a patient out of the general medical clinic is that he will get specialized attention by the physicians in the tuberculosis dispensaries, where a searching inquiry into past history and present environment, coupled with prolonged observation, will result in far more accurate diagnosis of doubtful cases.

It should also be possible to re-examine old cases periodically. The medical reason is obvious. The psychological effect on the patient is also worth considering. He knows that he is being watched and the knowledge makes him feel that it is worth while to keep up his attendance at the dispensary and to carry out the advice that is given him. His willing co-operation will thus be secured and held and the clinic's control strengthened many-fold.

Number of Physicians and Nurses Needed.

A unit basis for estimating the number of physicians necessary adequately to carry on a dispensary's work should provide for the needs of a maximum attendance and should allow from four to five patients per hour per physician. This includes both new and old patients and is based on the standard set by the Association of Tuberculosis Clinics of New York, which requires as a minimum allowance eighteen minutes for each new patient, nine for each old patient re-examined, and three minutes for interviewing each old patient who is not examined. Stated thus, no allowance is made for lost motion occasioned by consultations with other members of the staff or by irregular attendance of patients. The estimated unit basis, however, does make such allowance.

For the nursing staff a more or less arbitrary standard for urban centers has been set, allowing one hundred patients per nurse. This includes both dispensary care and home supervision as well as the bedside nursing of a few stray cases. For rural districts no arbitrary standard can be stated. The amount of work possible will naturally be affected by the density of population, by geographical features of the locality and by the transportation facilities.

Paid Medical Staff.

There should be no question about the policy of having a paid medical staff when possible. With no intention of discounting the value of volunteer work, it is nevertheless true that under a system of voluntary service it is difficult to keep men of the required high standard of efficiency at this kind of work. The offering of a small salary certainly aids in supplying the demand for physicians to man these dispensaries.

Compensation also insures a more regular and prompt attendance on the part of the physician with the resulting convenience to the patients, who will soon refuse to continue visiting the dispensary where hours and days are so uncertain that they are obliged to wait indefinitely and even come two and three consecutive days before they finally succeed in seeing the physician in charge. More than once dispensary attendance has been found to dwindle almost to nothing, patients refusing point blank to attend in spite of the most persistent urging of the nurses, because "the doctor is never there." The mere fact that there is a financial consideration involved will serve unconsciously to influence the physician to a more regular attendance or to provide a substitute when he himself cannot attend. This necessity of providing for a salaried medical staff is gaining a wider recognition from year to year.

Of the 116 dispensaries studied, over one-half, 53 per cent., were paying salaries, and of these by far the larger proportion relatively was found to be amongst the independent dispensaries, 65 per cent. of which were paying salaries as against 36 per cent. of those connected with general out-patient departments. The amount paid varies according to the amount of service required, and the responsibility assumed.

Volunteer Service.

A number of dispensaries report that it is necessary to supplement their paid staff with volunteers. While this may be necessary at times to meet an emergency, on the other hand, if certain members of the staff are paid, every effort should be made to put the entire staff on a pay basis. Discipline and morale suffer when all are not on the same footing and it is rarely possible to depend upon volunteer service. When such a combination does exist the volunteers should be assigned to work with a paid member of the staff rather than be allowed to work at a session when no paid physician is on duty. Thus their work is more easily supervised and many routine details will be carried out which it is fre-

quently difficult to insist upon a volunteer's performing, especially when such details involve additional work as is usually the case.

An inevitable accompaniment of volunteer service is the lack of adequate supervision. When a man is giving his time, the usual feeling is that whatever he does must be gratefully accepted without criticism. That his work is frequently open to criticism and that it is capable of improvement cannot be denied. Where the staff is made up of several physicians, there are bound to be discrepancies in the work, which could be considerably reduced if the work of the various men were adequately supervised. This does not mean that the personal equation is to be eliminated, but it does mean that certain accepted standards of diagnosis and treatment shall be maintained in order first, to safeguard the interest of the patients, and secondly, to secure the necessary uniformity in routine procedure.

Supervision of Medical Work.

The questionnaire sent out to the various dispensaries included a request for information concerning the supervision of the physician's work. The answers received indicated that little formal supervision of this kind existed. Nine answered categorically that there was no supervision. Fourteen returned no answer to the question and ninety-three returned answers which were classified as unsatisfactory because while making a definite statement, a number very evidently evaded the question. The following answers mean little or nothing and were included in this latter group: "Board of Directors," "Secretary of Society," "Hospital and Dispensary Committee," "General Dispensary," "Head Nurse," "Superintendent of Hospital when needed," and ". . . Tuberculosis Committee." Fifty-nine in all returned a definite response, such as "Chief of Commission," "Director of Clinic," "Physician in Charge," "Chief of Division or Chief of Staff," or "Medical Inspector of Tuberculosis Work." These latter were considered as indicating that some degree of supervision of the medical staff was in force.

Supervision of Nursing Work.

The supervision of the work of the nurses is of equal importance in the larger institutions where the nursing staff includes two or more nurses. It would seem essential that one nurse be designated as supervisor, who should be charged with the responsibility of planning and overseeing the work of the individual nurses. In the smaller clinics where there is only one nurse, naturally the planning and carrying out of her work will be an individual personal matter.

MEDICAL WORK

One considerable advantage enjoyed by the dispensary allied with general hospitals is that of securing for their patients with little or no

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Part Medical Staff.

pensary, however, and, as in the case of dental work, also necessitate the service of an extra man. Otherwise the tuberculosis patient must be referred to some other institution for this special treatment, if his defences are to be properly built up. If he is sent elsewhere for treatment, the tuberculosis dispensary should hold itself responsible for seeing that its advice is followed out.

An All-Around Dispensary.

An excellent example of effective work of this sort is furnished by the tuberculosis dispensary * in Atlanta. Says the secretary of the Anti-Tuberculosis Association in that city:

"We include upon our staff an orthopædist, nose and throat specialist, dentist, skin specialist, nerve specialist, and superintendent of Battle Hill Sanatorium (Municipal Tuberculosis Sanatorium).

"In treating tuberculosis we feel that we must look after every condition that lowers the vitality of a patient, and where there are clinics in the city provided for the different diseases we make use of them.

"The specialists mentioned give their services here because there are no clinics where these diseases can be treated. The laryngeal clinic and the dental clinic are held three times a week in conjunction with the pulmonary clinic though in a separate room.

"A stomach clinic is held once a week, a skin clinic is held once a week, and patients are sent to the private office of the nerve specialist.

"A tuberculous patient or suspicious case is not sent to other clinics or to other doctors without a nurse accompanying him, and a card is always furnished any patient referred elsewhere with attached card for the result of the examination to be reported to this office. In this way, we try to follow up every case that comes under our notice."

RECORDS

The detail of the matter of records, their form, and the system of filing in use, will be considered later. Here it is sufficient to note that the dispensary which is part of the general out-patient department is at a decided disadvantage. It is only one spoke in the wheel, and must of necessity conform to the established routine. It is perfectly true that tuberculosis dispensaries have set the pace for general dispensary work in the matter of record keeping, and are immeasurably in advance of the average out-patient department in most cities. It is probably safe to say that beyond the mere recording of the name and diagnosis, there is practically no other information available in the majority of general dispensaries throughout the country. On the other hand, tuberculosis dispensaries have developed a record system which gives more or less complete information concerning the patient's physical condition and medical

* Private dispensary, maintained by the Atlanta Anti-Tuberculosis Association.

treatment from day to day, so long as he remains under the care of the dispensary, and the salient facts of his economic and social background as a basis for any social treatment he may need. This, at least, is the ideal of the tuberculosis dispensary, an ideal that has been realized to some degree at least by the great majority of tuberculosis dispensaries.

The other departments of general dispensaries, with a few notable exceptions, have scarcely even admitted the possibility or necessity of approaching such an ideal.

CO-ORDINATION OF DISPENSARY WORK

Of the 11 cities having more than one tuberculosis dispensary, which are included in the present study, only four have worked out a scheme for the organization of their dispensary work on the district basis — New York, Chicago, Cleveland, and Baltimore.*

Boston's Plan of Centralized Dispensary.

In Boston a central municipal dispensary for the treatment of tuberculosis is connected with the Boston Consumptives Hospital, and employs a nursing staff for the home supervision of tuberculosis patients which covers the entire city,— each nurse limiting her visits to patients living within a given district. There are, however, six other institutions admitting, observing and diagnosing tuberculosis patients, who may come from any section of the city. Three of these institutions refer all suspicious cases to the central tuberculosis dispensary after the first examination. The other three hold patients for observation, until a final diagnosis is made. One of these refers to the central tuberculosis dispensary only those cases for whom institutional care is desired. As it employs a tuberculosis nurse, presumably it maintains home supervision over the cases it retains. Another institution belonging to this latter group also employs a special tuberculosis nurse.

Apparently the system of having one central tuberculosis dispensary has not produced a complete co-ordination of the medical work of the dispensaries who are handling tuberculosis patients. The employment of special tuberculosis nurses by certain institutions who are receiving patients from the entire city would seem to indicate also that the system of home supervision is not definitely co-ordinated.

Other Plans.

In Atlanta and Richmond, the large colored population has made it necessary to establish separate dispensaries to care for the patients of this race. These dispensaries are, however, maintained by the same agency which is responsible for the dispensary for whites, in one instance by a

* Within the past year the tuberculosis dispensary work of San Francisco has been reorganized on a district basis. Three dispensaries are now operated under the direction of the local anti-tuberculosis association.

private association, in the other by the local board of health. There is but one of each kind in both cities.

In Chicago and Cleveland the dispensary work is carried on exclusively by the municipality, on the basis of the district system, in Chicago, through its municipal tuberculosis sanatorium, and in Cleveland through a division of its department of health.

In New York and Baltimore the tuberculosis dispensaries are maintained both by public and private agencies. In New York responsibility for the nursing service is similarly divided, while in Baltimore the entire nursing service is furnished by the department of health.

New York's Association of Tuberculosis Clinics.

The existence of a large number of dispensaries variously maintained has somewhat complicated the situation in New York City, but their organization into an Association of Tuberculosis Clinics has resulted in an exceedingly efficient co-ordination of this work. The principles of organization upon which the association is based have served Cleveland and Chicago in the development of their tuberculosis dispensary system. As a number of other large cities are facing the problem of working out a scheme of organization for their several dispensaries at present without co-ordination, a brief description of the Association of Tuberculosis Clinics in New York may be helpful.

Municipal and private institutions meet on an equal footing and acknowledge equal responsibility, thus presenting a unique example of co-operation. Each institution entering the Association agrees to conform to three cardinal principles:

1. To segregate and treat its tuberculosis cases in a special class or clinic.
2. To maintain supervision over the homes of these cases through a visiting nurse working in and from the clinic.
3. To confine its work to cases living within a certain district — all other cases applying for treatment to be transferred to the clinic of the district within which they live.

Theoretical objections urged when the formation of the Association was first projected disappeared in the face of actual experience. Some institutions, thinking that the importance of their work depended on volume, feared that any limitation of their field of activity would cut down the amount of clinic material. They were reassured when the transfer system at the same time that it took away cases brought in others from other clinics, thus balancing the losses by the gains. Teaching institutions realized that they still retained sufficient material for the training of their students in physical diagnosis, as the cases were examined before being transferred.

The problem of meeting the city's need, which seemed hopeless merely from its size, became solvable when broken up into a number of minor problems having to do with a circumscribed area.

The District System.

For it is the district system which has proved the keystone of the work of the Association as a whole. The boundaries of a clinic district are agreed upon when the clinic is admitted to membership. As the clinic treats only cases from its own district, transferring to the proper clinic applicants for treatment who live in other districts, the nurse's visits are likewise limited. Her energies are thus concentrated on the supervision of patients living within the immediate neighborhood of the clinic. Cases are effectively followed up with no useless expenditure of time and effort, and the old evils of duplication and overlapping are entirely done away with.

All transferred cases are informed as to the reason why they are refused treatment at the first clinic, and a card is given them containing explicit directions regarding the name, location, and hours and days of the clinic to which they are being transferred (see appendix p. 107). In addition, Department of Health nurses, in the capacity of inspectors, visit these transferred cases and make sure that they do report at the second clinic. The conserving of the time and strength of both patient and nurse has not been the only good resulting from this transfer system. A much closer bond has been established between these various clinics, and a " team " spirit has developed among the physicians and nurses that cannot fail to strengthen the ideals and aims with which they are inspired.

Financial Independence a Help.

One of the chief factors making for the Association's usefulness has been its absolute financial independence of any particular agency represented in its membership. Its subsidy has come through a private organization — the Committee on the Prevention of Tuberculosis of the Charity Organization Society — so that it could not in any sense ever be considered as favoring one institution at the expense of another. The character of its membership which is purely voluntary has insured an unprejudiced reception of any dictum its Board of Directors, elected from this voluntary membership, might choose to proclaim.

The evils resultant when a number of dispensaries operate in the same community with no formal scheme of co-ordination, are so self-evident that a mere enumeration should suffice: overlapping of work, duplication of effort, lack of standardization of either medical or nursing work, all entailing a more than considerable loss of time and energy and a failure to control tuberculosis either in its manifestations or its extension.

If these details regarding New York's Association of Tuberculosis Clinics * appear to have been unduly stressed, the explanation lies in the fact that as a unique attempt to co-ordinate and standardize the tubercu-

* ...criptive pamphlet containing the rules and regulations under which the Association ...ed by addressing the Executive Secretary, Association of Tuberculosis ... N. Y. C.

losis clinic work of a large city, its experience is being constantly drawn upon by other cities throughout the entire country, which are trying similarly to enlarge their clinic facilities or to harmonize and organize the divers interests supporting dispensaries already in operation.

CONTROL — PRIVATE OR MUNICIPAL

Opinions as to the relative merits of clinics maintained by the city or by a private institution or association differ widely. There is something to be said on both sides. Greater uniformity of method, perfection of the details of routine management, more adequate facilities, and a paid medical staff will be possible under municipal control.

A paid medical staff will insure the existence of a certain discipline, which will make possible the effective carrying out of desirable innovations in the existing system which hospital boards of managers or trustees may be quite unwilling to sanction because of prejudice or conservatism resulting from a long adherence to frequently worn-out administrative methods.

On the other hand, the privately controlled institution is much more likely to develop the human side of its relationship with those it serves, to feel that its mission is one of service rather than regard itself primarily as an instrument of control. Naturally, if it is doing effective work, the fulfillment of this latter function will follow as a logical sequence. Imagination and initiative, necessary to the development of new phases of the work, are fostered by this spirit of service, whereas the very effectiveness of the routine and system which secure uniformity in public institutions inhibits this breaking away from current methods of work.

Centralized control, absolute uniformity, frequently level down to a minimum standard rather than encourage the attainment of a maximum standard. Friendly rivalry and healthy competition stimulate the development of new activities and result in a constantly mounting standard of efficiency. The private clinics keep the milk of human kindness circulating and blaze new trails, while municipal clinics show us how to perfect the details of administration, each making its contribution to the sum total of good accomplished. The work of these clinics as a whole can be strengthened and solidified and made increasingly effective by coordinating their efforts through an Association of Tuberculosis Clinics.

RELATION OF ANTI-TUBERCULOSIS ASSOCIATIONS TO DISPENSARY

The question is frequently raised as to how far a local anti-tuberculosis association should go in assuming responsibility for the financial support of dispensary work in a given community. The following excerpt from the printed regulations of the State Board of Health

[redacted]

[redacted]

[redacted]

ered energies of various agencies, public and private, where long established institutions of recognized worth are tenacious of their place in the sun, where other institutions are especially equipped for carrying on scientific work of real value, it may easily be that the most serviceable function an association can perform will be to serve as a common meeting ground for these several interests, as a link between them and other allied social interests and finally as an interpreter of them to the public at large.

WOMEN'S AUXILIARIES

One of the most effective aids in extending a dispensary's influence and developing its social possibilities has been the Women's Auxiliaries. Made up of women having a special interest in tuberculosis work, they have generally proved veritable fairy god-mothers to the dispensaries with which they are connected. Many a clinic physician or nurse, indifferent, weary, discouraged, at times hopeless, has been spurred on to renewed effort because of the sympathetic support of an intelligent, understanding, generous auxiliary. Meagre salaries have been supplemented; extra workers employed; additional facilities for caring for the children of clinic families have been provided; destitute clinic patients have become their special charge; while social service conferences with other social or relief agencies have been held regularly to work out the wisest plan for the care and rehabilitation of these destitute ones. Not only has the patient himself been helped, but a bond of mutual sympathy and understanding between the various agencies and their workers has resulted from the intimate knowledge of the difficulties and limitations under which each is laboring to accomplish the same end.

In a small community it may not be possible to organize these auxiliaries. The number of "interested" individuals is limited. They may and probably will have been already included in the membership of the local association,— which simply means that in such communities the relation of the association to the tuberculosis dispensary should be that of an auxiliary body.

CHAPTER III

Special Clinics

Children's clinics — night clinics — special classes.

One phase of dispensary work, the possibilities of which we are only beginning to realise is the special class for children. In no one direction does the preventive side of dispensary work promise more telling results than among children of tuberculosis families. It is generally recognised by medical men that a large percentage, some say the great majority of cases of tuberculosis occurring among adults can be traced to infection during childhood. It is also an accepted fact that these cases of tuberculosis among children respond most successfully to early treatment. By examining and treating these children we are striking at the very tap-root of tuberculosis.

CHILDREN'S CLINICS

There are many reasons why every effort should be made to treat these children apart from the adult dispensaries. Many of them are borderland cases, whose claims for individual attention are dwarfed when compared with the greater need of the more obvious cases in the adult dispensary. The diagnosis of these children is exceedingly difficult and requires special aptitude and considerable experience on the part of the examiner. Even when the child is not definitely diagnosed as tuberculous, it should still be kept under supervision to prevent its developing into a " case " because of low physical resistance and exposure to infection. Other medical treatment may be necessary, such as the removal of tonsils and adenoids, correction of defects in eyesight and the doing of much needed dental work. Frequently when parents are advised they fail to realise the necessity for such treatment, or do not know how to obtain it. With a nurse especially assigned to the work of the children's dispensary, these things are not only advised, but she sees to it that the advice is carried out. Objections to treating these children in adult tuberculosis dispensaries hold equally well with regard to their treatment in a general pediatrics department. Here again their demands for care are not so insistent as are those of children suffering with an acute disease, such as pneumonia, or cases of minor surgery, and naturally the time and efforts of physicians and nurses will go to the patients in greatest need.

In the dispensaries studied 45 (38.7 per cent.) were unable to give any figures whatever as to the number of children treated during a given year. Fifty-three (one-half) replied that children were treated at separate hours or in separate rooms. Of these by far the larger majority, 46, occurred in the group of independent dispensaries, nearly one-half of which could be accounted for by the dispensaries in Chicago, Cleveland, and New York. Eighteen dispensaries stated that a special physician was assigned to the work of the children. These figures indicate that the idea of the children's dispensary is far from being a general one. In two cities, Milwaukee and Pittsburgh, separate dispensaries for children are maintained. With these exceptions only ten other cities report any apparent emphasis on this work with children.

The advisability of keeping these children under close observation would seem to be so obvious as to need no comment. Instances could be multiplied indefinitely in which the first few examinations of the child exposed to infection failed to reveal any signs of a tuberculous process. Months later these children have been found to be infected. At this early stage they are curable. Had they been finally dismissed after their first examination and the responsibility for their return to the dispensary left with the parents, their subsequent infection might have gone unnoticed, until they were so far advanced that the possibility of their recovery might be seriously jeopardized.

Separate Accommodations — Special Nurse.

Granted that the ideal way of handling these children is in a special class meeting at separate hours or in a room separate from the adult clinic, there should if possible be assigned to the work in this children's dispensary a special physician and a special nurse, assuming that the staff is sufficiently large. Even in the small dispensaries where only one nurse is employed the children should nevertheless be treated on special days at special hours. When attention is focused on the development of this particular phase of dispensary work, the rapid growth of the number of children under dispensary care is remarkable as evidenced by the various dispensaries which have organized special classes for children. One fact stands out with increasing clearness: that the more this work with children is undertaken, the more vividly is realised the social character of the problem we are handling. Tuberculosis is a family problem as well as an individual one. The more efficiently a clinic develops the preventive side of its work, the more it will think in terms of families rather than individuals.

Value of Children's Clinics.

It is exceedingly difficult to state definitely the actual benefits accruing to these children as a result of their contact with the dispensary. One of the most important recognised factors influencing the physical well-being

of the children is the condition of the nasal passages, the throat, and the teeth. In the upbuilding of the child's health and strength an elemental duty is neglected if no effort is made to ascertain and, when possible, to remedy abnormal conditions of these organs, and this applies especially to children exposed to or actually suffering with any pulmonary affections. Glandular involvement, usually of the cervical glands is also a condition frequently met with which in many instances will need surgical interference. Treatment administered or obtained for them; efforts when successful, to get them away from the city, either into country homes or into institutions, cannot fail to make them more fit to resist the inroads of tuberculosis. By strengthening and curing these children we are cutting down materially the future source of supply for adult dispensaries. Naturally the home conditions should play a large part in determining which child should be sent away. Other things being equal, a premium certainly should be placed, and rightly so, on dirt, overcrowding and a generally bad environment, with the result that in selecting children to be sent away the preference is given to the child living under bad home conditions.

Undoubtedly the extra time and effort expended by the nurse through the children's dispensaries accomplishes much that would otherwise be left undone. It does not suffice to refer the child elsewhere for necessary treatment. Occasionally he goes; more often he does not, unless the parents are won over first to a complete confidence in the dispensary physician and nurse and then to assent to any plan of treatment or care that may be made for the child; and, lastly, until the nurse goes herself for the child, takes it by the hand to the institution or dispensary recommended, and then stands over it while the treatment is administered. The same holds true to a greater or less extent when it comes to sending the child out of town. It is not enough to have an available place to which a child may be sent. Many parents are loath to part with young children for several months, and a long and earnest campaign on the part of the nurse is frequently necessary to convince them of the wisdom of such a course.

Standards for Diagnosis of Children.

The difficulty of making in children a positive diagnosis of tuberculosis is generally admitted. Granting that any definite standards promulgated as a basis for determining its presence or absence will be open to a certain amount of criticism, nevertheless it has been felt by physicians connected with special children's clinics that the establishment of some such generally accepted criteria would serve two purposes; first, as a guide to physicians less experienced in children's work; second, it would contribute materially towards standardizing the work of the children's clinics as a whole, thus affording a comparable basis for checking up the results obtained. A special committee appointed by the Association of

Tuberculosis Clinics has formulated tentative standards for the diagnosis of tuberculosis in children which are now under consideration for final approval by The National Association for the Study and Prevention of Tuberculosis.*

NIGHT CLINICS

For a long time the question of night classes has been a mooted one. Here again, the pendulum has swung both ways. After they had been tried first in New York the feeling grew that they were being abused and that patients who could just as well come in the daytime were coming at night; that idle men were sitting around using them as a club; and that unnecessary demands were being made on the overworked physicians and nurses who had already given of their time and energy to the work of the day class. Then the night dispensaries were discontinued.

Reasons for Night Clinics.

Gradually the realization grew that the dispensary was failing to reach and to hold certain patients who were unable to attend the day sessions. The laboring man refused to break into an entire day's work and lose a day's pay. Mothers of small children could not leave the children and would not be bothered with bringing the whole family to the dispensary for repeated visits. Office workers, clerks and the like were unwilling to request leave for repeated absences from work for the purpose of attending dispensaries. These hardships were recognised as a hindrance to dispensary attendance in the case of patients admittedly tuberculous. Similar reasons applied with added force to other members of the family whose examination at the dispensary was desired because of their exposure to infection, but who themselves did not realize their danger and refused to give up their work for what they considered an unnecessary examination.

Finally the night classes were resumed, every effort being made to safeguard them against abuse. Patients who were applying for the first time to the night sessions were asked if they could attend the day class. If able, they were referred to the day class and subsequently attended it. The night class, however, recognised as legitimate cases for its care the working man or woman, the mother of small children having no one with whom to leave them, until the husband came home at night, and the exposed members of families who were unwilling or unable to attend the day class for examination. It is quite possible too, that the evening club idea should be encouraged rather than discouraged. In other words the informal semi-social atmosphere of the night class may prove attractive and an additional reason for continued attendance. One dispensary has deliberately played up this factor and has offered to the patients who come to the night class hot cocoa or milk and crackers.

* See Appendix, p. 88.

In Chicago, an analysis of the work of the night clinics, when compared with that of the day clinics has demonstrated —

a. That night clinics show higher percentage of *positive* diagnosis.
b. That night clinics show higher percentage of *early* diagnosis.*

Difficulties Encountered.

While the difficulty of securing doctors and nurses for attendance at the night classes has seemed to be an obstacle, in most cases it will be found that this difficulty has arisen because of the failure to make an equivalent allowance of time for this extra service. It has been overtime work and has been resented accordingly. One dispensary, where the staff was inadequate to maintain day sessions and night sessions, deliberately eliminated two daily sessions, holding corresponding sessions at night, the equivalent time being made up to the nurses. As for the doctor, he had obligated himself to give a certain number of sessions weekly and was quite willing to give these either in the daytime or in the evening. At other dispensaries, service at night classes has been secured by requiring members of the medical and nursing staff to serve in rotation. The disadvantages of this system are that the patients attending the night sessions meet a different physician and nurse when they visit the dispensaries, so that the personal relationship between patient and physician or patient and nurse is entirely lacking. Nor is the same interest shown in developing the work of the night class or in maintaining the interest of the patients by physicians and nurses to whom the work of the night dispensary is an occasional assignment.

It appears that of the 116 dispensaries under consideration, practically only one-third (forty to be accurate) hold evening sessions. Proportionately the independent dispensaries were considerably ahead of the other group in this respect. Here again it would seem that the independent dispensary has a freer hand. Institutions are apt to regard with disfavor innovations that interfere with established routine. Other departments of general dispensaries have never found it necessary to hold night classes, therefore, it is not necessary for a tuberculosis department to do so. Because of the complex organization of these general dispensaries the holding of an evening session means extra work for various other employés, besides the doctor and nurse in the tuberculosis department. The registry clerk, the porter, the engineer, and it may happen, an extra cleaning woman, will be needed. At least this is the objection that superintendents frequently advance. As a matter of fact with a little maneuvering they can very easily obviate it. The time for admitting cases can be limited to a half hour, and the nurse can come in advance of the regular opening hour and can act as registrar. The medication in tuberculosis is not extensive and usually stock drugs only

* See report by Theodore Sachs, M.D., "Municipal Control of Tuberculosis in Chicago," 1918.

are used. It is perfectly possible to arrange with the druggist for an extra supply of these to be left in the dispensary on the days when the night sessions are to be held. This seems to be a better arrangement than the one which some dispensaries have used of giving a prescription which some member of the family has to bring to the dispensary the following day to be filled.

SPECIAL CLASSES

Credit for the special class idea is due to Dr. Joseph H. Pratt who established the first class in Boston, July, 1905. Sporadic attempts to carry on similar classes elsewhere have not been strikingly successful. Briefly the idea is to select certain dispensary patients for intensive care both by physician and nurse. They meet the physician in a group for regular weekly conference where losses and gains in weight are compared, daily histories (kept by the patient) receive individual comment and a helpful stimulating talk is given by the physician in charge. The nurse visits the homes as often as may be necessary at least weekly, secures ideal hygienic conditions for the patient by providing outdoor sleeping accommodations, proper nourishment and suitable clothing, supplementing the family income when necessary, even subsidizing the family entirely if the patient happens to be the bread winner and is forbidden to work. The patient must be willing to obey unreservedly the instructions of the physician and nurse and must have sufficient intelligence to keep a daily record according to instructions of pulse, temperature, food, medicine, amount of rest and sleep, noting any unusual physical symptoms that may occur.

Element of Success.

The success of the special class would seem to depend first upon the selection of suitable patients, intelligent, obedient, co-operative; second, upon the personality of the physician and nurse conducting it for they must be capable of inspiring their patients with an unusual degree of confidence in order to secure unquestioning obedience to direction; third, a relief fund of considerable size.

The main difficulty seems to lie in the first requirement; there are so few suitable cases available among the average dispensary applicants. More than one special class has died of inanition for this reason alone. In the meantime, however, the remaining work of the dispensary has been keyed up by the example set by the special class and so far as is practicable many of its methods are applied to various other groups of patients in order to strengthen the clinic's hold upon them so that ultimately the need for the special class grows less and less. Thus as a pace maker the special class is unequalled; as a permanent institution its feasibility is open to question.

Dr. Pratt's Results.

Dr. Pratt, reporting to the Clinical Section of the National Association for the Study and Prevention of Tuberculosis, at its last annual meeting, on the results obtained by the class method of home treatment in pulmonary tuberculosis during a period of ten years, says: "From July, 1905, to July, 1914, 189 patients were admitted. The later careers of all but four of these have been traced. The condition of those living on July 1, 1915, was as follows: well and working, 104; living but unable to work, 14. There have been 69 deaths. Twenty-nine of these deaths occurred while the patients were members of the class. Fifty-six per cent. of all those admitted to the class in the nine years were restored to health. The majority of these were beyond the incipient stage of the disease when they sought treatment in the class.

"Out of 106 patients in whom tubercle bacilli were found in the sputum, 55 are living, and 49 are dead. In the histories of 52 patients there is no record of the sputum examination. Of these 35 are living and 16 dead. In 53 patients all the sputum examinations were negative. Of these 47 are living and five are dead.

"We are now able to compare the after-results obtained by our plan of home treatment for poor patients with those obtained by the sanatorium treatment. In two leading English sanatoria for well-to-do patients 52 per cent. of the patients discharged were well or alive four to eight years afterwards. Among a large series of patients treated in the Massachusetts state sanatoria Miss Farmer found that 24 per cent. were leading normal lives four to seven years after their discharge. Of our 88 patients who left the class four to eight years ago 60 per cent. are well and working and 66 per cent. are alive.

"Our old patients with wage earning power restored earned about $50,000 the past year. The total expense of the class for ten years has been about $15,000. The class established and supported by the Emanuel Church of Boston, is therefore earning a huge dividend on its investment."

CHAPTER IV

Records

Uniform record system — number of elementary facts to be collected by all dispensaries, medical, financial and social — reasons for recording these facts, making them available through a practical filing system — the family unit — necessity for recording subsequent information regarding medical and social care of tuberculosis — record forms — transferring records between clinics — checking patients' attendance at clinic and nurses' home visits — monthly reports — other clerical work — reviewing of records — employment of special clerical worker — volume of work reported by various cities.

The question of a uniform record system which could be used in all dispensaries throughout the country comes up perennially for discussion. To-day the debate is practically closed as to the necessity of recording adequate information concerning the physical condition, past and present, of the tuberculous patient. It is also pretty generally recognized that it is necessary to keep a fairly full record of the patient's social and economic history in order that his social care may be based on a knowledge of his needs.

Record forms may and probably will continue to differ according to the type of institution. As we have said before, the independent dispensary is a law unto itself in this regard, while the dispensary which is part of a general out-patient department must of necessity conform to the established routine record system in vogue. But it should be and is perfectly possible for all dispensaries to obtain and maintain a record of desirable information regarding each individual patient no matter what the form of the record may be. A minimum number of facts should be regarded as essential for an adequate record and this standard should be adopted by all dispensaries. Such information should include:

Necessary Facts.

1. Identification date — name, age, sex, nativity, color and residence.
2. Physical data — (special record forms for noting physical condition of children), exposure to infection, past history and present condition, being a detailed record of the physician's examination and result of special tests, blood, urine, sputum, Wassermann, X-ray.
3. Social data — make-up of family, housing, living and work conditions.

4. Economic data — income, expenditures, insurance, source and amount and kind of relief if wholly or partially dependent.

5. Continuing notes of observation and care at clinic and in home for patient and other members of family, by physician and nurse.

6. Condition on discharge and final disposition.

TABULATION OF RECORDED FACTS

Certain definite facts should be easily available where any group of patients are under treatment. No record system can be considered adequate which does not include provision for a daily tabulation so that it is possible to take stock at any time. From this tabulated information one should be able to give the number of new patients at a given time, the number of old patients re-admitted, the total number under treatment, total number discharged, visits to dispensary classified according to sex with a separate classification of children under a given age.

The total number discharged should be classified according to stage of disease at the time of admission, length of attendance, and reason for discharge. The physical condition on discharge should be given for all cases under treatment one month or more. The total number of cases having sputum should be noted as well as the number of these whose sputum has been proven to be bacteriologically positive.

The number receiving special social care including material relief should also be noted. It would seem that such information should be available at any tuberculosis dispensary to-day. A number of the dispensaries to whom the questionnaire was sent were unable to give it. A consideration of these replies in detail will be taken up later. At present the inability of many dispensaries to answer these questions is noted merely to call attention to how widespread is this failure to recognize the inadequacy of systems of records in use.

Records and Financial Support.

For purely selfish reasons the side of this whole question of record keeping which has to do with the continuance of financial support or of securing its increase as work continues to grow is worth considering. Those who hold the purse strings, whether boards of managers of private institutions or city budget makers, have to be shown why. Impressions, generalizations, vague statements of insufficient facilities get nowhere. Statistical comparisons of the work from year to year showing a definite growth in volume with no corresponding increase in facilities is the most convincing argument one can make. Frequently this information must be presented on the shortest possible notice. Even if it is available but buried in individual records, time is lacking in which to dig it out. This same argument applies if a contribution is desired for private institutions. A restatement of work done and results accomplished, brief and to the point, based upon actual facts and figures will do more in

securing a large contribution than any amount of highly colored, sentimental "sob stuff." Not that the "heart appeal," the human interest appeal, is to be scorned, but it must be backed up by the appeal to the head if it is to secure enduring, substantial returns.

Good Records Absolutely Necessary.

The argument for a full and complete record system holds equally good for medical and social reasons, although there are good nurses and good physicians who feel that records are futile things at best and that the time spent in keeping them is so much time wasted, not to mention an unnecessary burden upon people already working to the limit. It is perfectly true that what we do for John Smith, the time we spend in examining him, advising him, treating him, and visiting him, is going to mean much more to him at first than what we write down on his individual record or report about him to some gatherer of statistical information. The point is that as we go on treating John Smith, what we have done for him and the results thereof are going to determine in a large measure what we will continue to do for him in the future. The records of many John Smiths studied in the aggregate furnish an excellent measuring-rod for determining the efficiency or inefficiency of a clinic's work.

Valuable ideas for new lines of development suggest themselves from a study of this massed information, which at the same time furnishes the argument for putting these ideas into practice. The pettiest storekeeper keeps an accounting of his income and expenditures. He is dealing only with material commodities and the dollars and cents they represent. Because we are dealing with other and higher commodities, we have scorned business methods!

Why should we if we are looking for results? Our expenditure is not alone in dollars and cents for salaries and relief, it is in professional skill and experience, in spiritual qualities of understanding, sympathy and self-sacrifice. Our income is the protected families, the improved living conditions, the restored health, and the economic independence of those who come to us for help. Is it not worth while for us to balance our accounts occasionally and see if our income is keeping pace with our expenditure, and if not, why not?

FILING SYSTEM

We have referred before to the desirability of emphasizing more and more the family aspect of the problem of tuberculosis. We shall not always have the homeless vagrant. The signs are pointing to the time when his forcible detention will become an accomplished fact. Then it is to be hoped that a dispensary will have so many families under its care rather than so many cases. We have to consider the family rather than the individual when planning the social care of our patients, and

we are all ready to acknowledge that the social care of tuberculosis is an equally important factor with the medical care. It might be better to simplify our record system if this idea were carried out, at least so far as social and nursing history is concerned.

Family Records.

Under present record systems it is very difficult to get any idea of the family as a whole. Granted the advisability of having the medical and social history of a case filed together, the nurse naturally rebels at the necessity of writing the same information on five different charts for five additional members of the same family. A family card, summarizing the social and nursing history of the family, could be placed in the active clinic file to remain there as long as an individual from that family remains under dispensary care. From such a card one should be able to tell at a glance the positive cases in the family, those under observation, the age of each, the date of their last examination and their location. If not under active clinic care according to the filing system in vogue at the dispensary, they could be distributed in the various files, "inactive," "discontinued," "out of town," "in institution," or "dead" files. An index file simplifies the identification of clinic patients and their records. We are assuming that the medical and social or nursing histories of every patient should be filed together, for two reasons: first, that the physician may have this information before him when reviewing the patient's medical record, and be governed accordingly in his advice, treatment or disposal of the case; and secondly, that the nurse may be thoroughly conversant with the medical status of the case. Various reasons have operated to render this scheme impracticable in certain communities.

Filing Medical and Social Records Together or Separate.

Out of 112 dispensaries who returned answers to questionnaires on this particular point, 62 stated that these records were filed together; 50 that they were separately filed, 1 failed to return any answer whatever, and 3 others answered in so vague a way that it was not possible to interpret their replies. In some instances the separate filing system has been necessary because of the form of organization of the nursing staff: for example, in certain dispensaries in Baltimore where the entire tuberculosis nursing force operates under the Department of Health; in New York, in the Health Department Clinics where considerations of economy of time and simplification of the record keeping of the branch offices of the Health Department have rendered it advisable.

Continuous Record of Medical and Social Care.

It has not been possible to obtain satisfactory information as to the detail of records kept by the various dispensaries included in this study.

As previously stated, a minimum number of certain elementary facts should be obtained and recorded for every patient under dispensary care. Equally necessary is it that there should be a continuous record of patients' subsequent visits to the dispensary. The report of the nurses' subsequent visits in the homes should also be a part of the regular dispensary record. Occasionally nurses note this information in a private memorandum or note book kept for their own convenience, and the information thus recorded is never transferred to the regular clinical records. Again it happens that no record at all is made of these visits. It is all very well to say that the nurse is going into the home constantly and that she knows the family. The reliability and availability of knowledge depending upon any one person's memory is questionable and the busier the nurse and the larger the dispensary, the more unsatisfactory is the information that any one person carries in her head. Where, as must happen in the nature of things, the nurse steps out of the ranks and another takes her place, that store of knowledge becomes indeed a buried treasure.

One important fact to note on any dispensary record is the original source of reference of the patient. The value of having this information available is two-fold. First it may frequently be suggestive of possible individuals or agencies whose co-operation may be secured in working out a plan for the social care of the family. Secondly, it may suggest a source through which additional patients, particularly children, can be brought into the dispensary.

FORMS

As to the most desirable form of record, there will always be many minds. More and more the card system is coming into use for many obvious reasons. It is easier to file, it is more durable, and is less likely to show the result of wear and tear consequent upon frequent handling. Card records are much more easily used for tabulating purposes. To be practical, however, these cards should not exceed a certain size, 5″x8″ being the standard. There are people who will always feel that this limitation of space overbalances any other considerations of utility and they will prefer the charts. It is quite possible to provide for indefinite extension of the card system to meet this objection. It is interesting to note that the card system is by far the more popular as evidenced by the fact that 89 dispensaries reported the use of this system as against 17 who still used the charts. Seven dispensaries reported a combination system of cards and books; one, a combination of charts and books; one, a combination of cards and charts. One dispensary's reply was too indefinite to be classified. The outstanding fact here was that in tuberculosis dispensaries the book system has been relegated to the obscurity that it deserves, which is more than can be said of the majority of general out-patient departments. Sample record forms are shown in the

appendix. (See p. 97ff.) It is possible that some of the detail included on these records is unnecessary in the smaller communities. The main items, however, should be included on every dispensary record. Objection is frequently made to the printed provision for the kind of answer to be obtained, i. e., "yes," "no." Experience has proved that the inclusion of these details on a printed form makes for a more complete record than the provision of a blank space to be filled in according to the impulse of the person making the record. At best the memory is a tricky thing to rely upon and this is more than true in the rush of a busy dispensary when time presses and patients are clamoring for attention. Provision for a categorical yes or no, to be checked whenever possible, saves time and effort and leaves no loophole for carelessness.

TRANSFERRING RECORDS BETWEEN CLINICS

In cities where there is more than one dispensary, the question of transferring records from one dispensary to another has been repeatedly discussed. Where the dispensaries are all under one management it is perfectly possible to do this and the physician at the second dispensary has the advantage of a detailed statement as to the previous history and treatment of the patient to start with, while the patient is saved unnecessary questioning. On the other hand, if the dispensary is part of a general out-patient department it seems unreasonable to expect that the institution's file of records should be depleted by sending outside the records of any particular group of patients. The legal right to do this has also been questioned by some private institutions. The suggestion has been made that a duplicate of the original report be forwarded with the patient. This again entails extra work and raises another objection.

In New York the Department of Health dispensaries, 18 in number, transfer records among themselves, but there is no corresponding transfer between the clinics privately maintained, either between themselves or with the Department of Health dispensaries. An attempt has been made to meet the situation by providing a special record card to be forwarded to the dispensary to which the patient is being transferred, which contains such items regarding the patient's physical condition and previous medical treatment as one private physician might send to another, for the latter's own information and guidance, if the patient were being sent to him for any special reason.

SYSTEM FOR CHECKING ATTENDANCE AND NURSES' VISITS

An important provision of any record system is the check on the regularity of the patient's attendance. The dispensaries were requested to state what system for checking attendance was in vogue. Ten replied definitely that they had no special system. Forty-eight described a

definite system which they used. Fifty-six answered so indefinitely that it was not possible to classify them, the impression received being that they have practically no system. Two failed to reply. Of those that were not classified, answers like the following meant little or nothing: " Card system," " Nursing visits," " Patient's records," " Nurses."

Methods in Vogue.

The definite replies described a particular method in vogue and indicated three general methods. 1. A card with identifying information is made out for each patient and filed according to the date of the next visit due. This is known as a " tickler " file. 2. The patients' charts are filed according to the week of attendance. The process adds a bit to the difficulty of finding a chart, however, as they must be searched for under each week. It is essential, too, that a name index file be kept if this system is followed. 3. A monthly register is kept containing the name of each patient in the active files, followed by ruled spaces for each day in the month, a check being placed under the date of the patient's visit to the dispensary opposite his name. A glance would suffice to show the time elapsing since the last visit.

In this last mentioned scheme, the nurses' visits in the home may also be similarly noted by checking with a different colored ink.

The Street File.

The " street file " (see Appendix, p. 108) which has been used by several clinics has proved a satisfactory method of keeping track of the patients' visits to the clinic and the nurses' visits in the homes. Besides the usual information necessary for identification purposes, the card carries ruled spaces for checking the patients' attendance and the nurses' visits by date. The reverse side gives the names and ages of other members of the family. As the cards are filed according to street and number, the nurse is able to plot her day's work with regard to the relative location of the homes she is to visit. The necessity for repeatedly recopying the names of all patients remaining in the active clinic files is obviated by the use of cards — which can be removed from the file when the patient is discharged or discontinued, thus keeping it up to date.

Value of Street File.

It is assumed of course that in every instance the individual record of the patient shows the date of his last visit, but as the nurses' visits should be influenced by the frequency of the patients' dispensary attendance, she should have constantly before her a record of this attendance in order to plan her visiting work accordingly. It would seem like a great waste of time to go over individual records daily to find out the patients who were delinquent in attendance. In large dispensaries failure to maintain an effective checking system results in the accumulation of dead wood in the files, patients who are simply lost sight of until by

chance the realization comes home that the patient has not attended the dispensary for two or three months. This is particularly true of cases who are supposed to be working and are not expected to come at frequent intervals.

It also occurs in connection with the children's dispensaries, where a large number of healthy children are supposed to come occasionally for examination, who ought not to be dismissed because of their continued exposure to infection. Some dispensaries keep no record whatever of the physical condition of these children. This is manifestly wrong for two reasons: In the first place, there should be a written record of the result of every examination made by a physician and a statement of his findings. In the second place, the nurse will frequently find it a considerable saving of time to have such a record available when planning summer outings for these children.

Dispensary Children Classified.

A suggested classification of dispensary children might be positive, suspicious, predisposed, apparently healthy and apparently cured cases. The predisposed would include children with physical defects, lowered vitality, malnutrition, plus exposure to infection. The apparently healthy children would include those who are or have been recently exposed to infection. The apparently healthy and apparently cured cases could be filed separately and need not be considered a part of the active dispensary files. As with the positive and suspicious cases, who are re-examined monthly, a routine procedure of checking attendance should also be adopted regarding these observation cases whereby their re-examination would be insured every three or four months.

CLERICAL WORK INVOLVED

No consideration of the question of record keeping is complete which does not include some reference to the clerical work involved. That the carrying on of this clerical work means an additional drain on the nurses' time and energy, must be admitted. It is equally true as we have tried to show that it is an essential part of a dispensary's work. The keeping of the clinic records is the joint responsibility of the physician and nurse. The medical record should be kept by the former, the social, economic and nursing record by the latter. Opinions differ as to the taking of the initial history, whether this should be done by the physician or nurse. Expediency usually decides in favor of the nurse, thus saving the physician's time. He should, however, record the findings of all physical examinations, the medication prescribed and the general condition, particular symptoms and the like, at each subsequent visit of the patient to the clinic. Similarly temperature, pulse, respiration and weight will be noted by the nurse on the medical record each time the patient attends the clinic.

Making the Records Complete.

No clinic record should be returned to the files until the nurse in charge has reviewed, after the clinic session is over, the entries made for the day. Busy doctors and hurried nurses are apt to leave the record incompletely filled out. Such omissions not only destroy the value of the records for statistical purposes, but not infrequently result in the neglect of the patient's best interests by failing to note some vital point bearing upon his welfare and the welfare of his family. Monthly reports of the clinic work will be required by those responsible for the maintenance of the dispensary, either financially or in a supervisory capacity. Regular printed blank forms should be used for this purpose and should conform so far as possible in arrangement and classification with the daily tabulation sheet which should give in addition to the identification data for each new patient admitted, occupation, source of reference, diagnosis and final disposition. In other words, the monthly report should be a summary of this daily tabulation, thus minimizing the amount of work necessary for its preparation. The preparation of this monthly report will be greatly facilitated if a daily clinic journal of admission and attendance is kept as well as a daily record of cases discharged (see Appendix, p. 113). It should provide for summarizing the day's attendance of new patients, and old patients, classified into men, women and children under sixteen. The record of discharged cases should include the reason for discharge, the duration of treatment, the physical condition on admission and on discharge. (See Appendix, p. 114.)

How Much Should Nurse Do?

If the nurse is responsible for the administration of a special relief fund, an accurate detailed account of all disbursements must be kept.

Finally, various application blanks for institutional care must be filled out; special data prepared for individuals or agencies interested in particular phases of the dispensary's work, special reports forwarded on individual cases and incidental correspondence carried on from day to day. Much of this work can be done by a capable clerical assistant, in fact all of it, save only that which belongs to the keeping of the clinical and nursing records. When it comes to the point that a nurse's work in the home is seriously interfered with by the amount of clerical work to be accomplished, it is poor economy to use her time and energy for that portion of it which could be done by an ordinary clerical worker.

VOLUME OF WORK REPORTED BY VARIOUS CITIES

Of the 116 dispensaries included in the present study, twelve failed to reply to the question as to the number of new patients treated during a year, while fourteen gave no information regarding the number of visits made to the dispensary. One, an independent dispensary, stated definitely that no accurate account of attendance was kept, another gave

only approximate figures, stating that it was part of a general dispensary and had no complete records. Forty-five dispensaries failed to give figures as to the number of children treated. Of those who did give this information "the child" included persons anywhere from ten to twenty-one years of age. Fifty-five dispensaries gave definite information regarding the number of men and women treated; twenty more were unable to classify their adult attendance by sex; forty-one gave no figures whatever on this score.

In the group of independent dispensaries, the smallest reported twenty-eight new patients treated in one year. During the same period a total attendance of seventy-five visits made by old and new patients is reported. This was in a Massachusetts town of 15,960 inhabitants having a tuberculosis mortality of ten per annum. There were no local hospital beds but institutional care was available in five state institutions. The largest attendance reported by an independent dispensary was in the same state which treated 2,455 new patients in the course of a year, comprising 928 men, 750 women, 777 children under fifteen. The total number of visits made by old and new patients during the same period was 10,435. This was in Boston with a population of 727,465, a tuberculosis mortality of 1,051, local hospital beds amounting to 649, and a share in the facilities offered by five state tuberculosis institutions having a total of 1,380 beds. This dispensary is connected with the Boston Consumptives' Hospital and to it are referred the greater part of the tuberculosis patients in Boston.

Largest Volume of Work.

Excluding this dispensary, which is to a certain extent a central admitting station as well as a dispensary in the ordinary sense of the term, the largest volume of work done by an independent dispensary was reported by one of the dispensaries of the New York City Health Department, which dealt with 2,016 new patients during the previous year, of whom 804 were men, 631 women, 581 were children. The total of visits made by new and old patients during the same period was 17,206. New York has a population of over 5,000,000, a tuberculosis mortality of 8,842, local facilities in hospitals and sanatoria amounting to 4,632 beds and a proportionate share of sanatorium beds in a state institution caring for some 300 patients.

Smallest Volume of Work.

The smallest tuberculosis clinic of a general dispensary or out-patient department in point of numbers reports thirty-five new patients in one year and 151 visits to the dispensary by new and old patients. The town in which this dispensary operates has a population of 49,313, a tuberculosis mortality of thirty and a local institution with one hundred beds. The largest tuberculosis dispensary operating as part of a general out-patient department is connected with Bellevue Hospital in New York.

It reports 2,273 new patients comprising 1,327 men, 570 women, 376 children under sixteen. A regular attendance of 10,875 visits by old and new patients was reported during the same period.

An attempt was made to tabulate figures showing the volume of work done in those cities or towns (52 in all) having only one dispensary and to compare these figures with the population and known death-rate from tuberculosis. A statement of available institutional beds was also included. It was hoped that a certain ratio between the amount of work done and the size of the community might be developed from such a tabulation which would be helpful in arriving at a tentative standard for determining what shall be considered adequate facilities for the dispensary care of tuberculosis in a community of given size.

Incompleteness of Data.

The attempt, however, was futile. The information afforded by the questionnaires was so incomplete even as regards these few elemental facts that the tabulation and comparison is valueless unless it be regarded as evidence of the entire lack of standards existing even in the seventeen towns for which the information was available in full. It is for this reason only that the following table is included:

Comment seems superfluous as regards the quality of the work indicated by the dispensaries who are unable to tell how much work they are handling in the course of a year. It is equally significant when dispensaries are unable to give figures regarding the number of children with whom they are in contact. Here again probably the most successful appeal to these dispensaries to mend their ways and their records will be one that touches motives of self-interest. The dispensary which depends solely upon generalized statements regarding its volume of work and its accomplishments stands small chance of continued or of increased support. If possessed of a private endowment it may continue to feed upon it, but if dependent upon public support either from public monies or from renewed contributions, it must be able to produce evidence first as to its need; second, as to its efficient use of funds entrusted to it in the past. These figures which were requested were the most elementary ones and should be obtainable upon request in any dispensary. It does not require any complicated system of bookkeeping to have this information available.

Reports and Their Value.

Another reason for having these figures on hand is to show the best adjustment of a dispensary's facilities to meet the demands that are being made upon it. Dispensary hours may need to be readjusted in order to meet the convenience of particular groups. If a large number of men are coming, evening hours may be necessary. If a disproportionate number of women are coming to the dispensary which is being held during morning hours, the need for an afternoon session may be

SOME COMPARATIVE FIGURES OF TUBERCULOSIS DISPENSARY WORK

AUTHOR'S NOTE: — This table is intended primarily to show how impossible it is to make any satisfactory comparison of work, because of insufficient records.

Town	Popl.	Tb. Mortality	Inst. Beds.		New clinic patients	Visits to clinic old and new pts.	Nurses' visits to home	Total cost
			State	Local				
Old Town, Me.	9,872	...	140 (3)	0	96	554	1611	$337.46*
Middletown, N. Y.	15,570	38	300 (1)	0	97	524	1500	1738.15
Lockport, N. Y.	19,436	11	300 (1)	0	67	160	560	1750.00
Lewiston, Me.	27,053	38	140 (3)	0	36	295	2335	1140.07
Brookline, Mass.	30,343	14	1380 (5)	31 (2)	60	484	2830	1500.00
Jamestown, N. Y.	34,027	29	300 (1)	0	39	120	1677	1347.50
Lexington, Ky.	37,935	106	0	0	208	1006	8040	5553.00
Fitchburg, Mass.	39,870	33	1380 (5)	0	77	183	1409	1200.00
Kalamazoo, Mich.	44,320	67	86 (1)	40 (1)	125	1435	1546	955.86
San Diego, Cal.	46,685	148	0	12 (1)	37	164	35†	470.96
Champaign, Ill.	51,829 (1910)	...	0	0	111‡	619‡	600‡	1125.00‡
Springfield, Mass.	56,476	79	0	40 (1)	63	504**	2201	1800.00
Yonkers, N. Y.	90,156	131	300 (1)	70 (2)	456	2407	8917	6918.48
Grand Rapids, Mich. ...	120,695	66	86 (1)	68 (1)	494	1436	5902	4117.00
Columbus, O.	199,417	274	150 (1)	75 (1)	536	2794	8791	7462.00
Cincinnati, O.	398,452	914 (?)	150 (1)	330 (2)	1027	3928	7839	8727.62
San Francisco, Cal.	440,995	718	0	196 (3)	452	3941	3895	2708.12

* Nurse's salary not included.
† Made by part-time social worker.
‡ Figures for 11 months.
** "Average."

indicated in order to make it easy for busy housewives and mothers to attend. The needs of school children should always be considered and the children's sessions should be held either late in the afternoon after school hours or on Saturdays. The work of the dispensary is greatly facilitated by having a special registration or interviewing room and separate examining rooms for men and women. In dispensaries having a very small attendance this is less necessary. In the larger dispensaries a great saving of time is effected by this arrangement. If there are two or more physicians one can deal with the women patients and the other with the male patients. If there is only one physician on service, separate examining rooms make it possible for patients to be undressed and ready and waiting for the examination without loss of time to the physician. This, of course, is impossible where there is but one examining room where patients of one sex only can be undressed and examined at the same time.

Of the 116 dispensaries less than half — 52 — reported that they had these separate examining rooms.

CHAPTER V

Clinical Work

Policy in treatment of doubtful cases — diagnostic aids; tuberculin, X-Ray, sputum examinations, Wassermann Reaction — supervision of medical work — stimulation of professional interest in tuberculosis work — preventive work, examination of other members of the family — recommendations for institutional care — the clinic an educational centre.

The questionnaire sent out to the various dispensaries in connection with this study requested information as to the number of patients diagnosed as positively tuberculous amongst the total number treated during a given period, and of these diagnosed cases, the number whose sputum was found to be positive. To the first question twenty-five or 21.5 per cent. returned no answer. Six answers were so unsatisfactory that it was not possible to use the information they gave. Eighty-five or 73 per cent. gave definite figures according to which the percentage of new cases treated during a given year who were diagnosed as positively tuberculous was anywhere from sixteen to one hundred per cent. These figures may indicate two things. A large proportion of undiagnosed cases may show the amount of preventive work the dispensary is doing in examining and keeping under observation certain individuals because they are exposed to infection by living in contact with a positive case. It may also indicate a laxness in the medical work, that is, inability or unwillingness of the physician to make a definite diagnosis of doubtful cases.

DOUBTFUL CASES

As to the best policy to pursue in connection with cases difficult to diagnose, two considerations must be borne in mind, each having a bearing on the best interests of the patients. First, whether these interests are conserved more effectively by treating for an indefinite period of time the doubtful case as though it were positively tuberculous, in the meantime having it come to the dispensary where it is brought in contact with other tuberculous patients with the consequent psychological depression which will inevitably result from fear of the disease; or second, whether the patient who cannot be diagnosed as tuberculous after a pro-

longed period of observation should be discharged and not have the stigma of tuberculosis attached to him unnecessarily.

The chief consideration undoubtedly should be to instill into the individual ideas of right living which are just as essential and just as beneficial in building up his resistance to a dozen other diseases as to tuberculosis. If this has been accomplished the patient may be allowed to go in safety. The impossibility of demonstrating the actual presence of tuberculosis is sufficient assurance that he will not be a menace to any one else, and his own future welfare lies in his own hands.

The Neurasthenic Patient.

Every tuberculosis worker is familiar with the neurasthenic who having once got the idea that he is tuberculous, refuses ever afterwards to do an honest day's work and frankly believes that his family, his friends and the community at large should support him for the rest of his natural existence. Scanty relief funds which are inadequate to supply the needs of those who really should be helped are used up for his benefit and at the end of five or six years the case is still " incipient " or " first stage " or " doubtful " according to the personal equation of the last examiner who sees him. Unquestionably the patient has something the matter with him. It may be vitiated vitality, or he may have some real trouble, possibly a specific disease, but he is not tuberculous and tuberculosis institutions should not be choked up with him and his kind, which only points to the greater need for more careful diagnostic methods and the use of every diagnostic test available.

Procedure Followed in Doubtful Cases.

Dispensaries were asked to state what procedure they followed in holding doubtful cases for diagnosis. Twenty-four returned no answer and two others returned answers so unsatisfactory that they could not be classified. Three stated that these cases were held indefinitely. Forty-six gave a definite time limit for the holding of such cases, which varied anywhere from two weeks to six months, the average time being from one to two months. It would seem that a case which cannot be diagnosed in this time should be given the benefit of the doubt, discharged and told to return at some subsequent date. On the other hand, cases which at any time have presented suspicious signs and who are living in contact with a diagnosed case of tuberculosis should be followed up at regular intervals in order to secure their periodic re-examination. Undoubtedly, because of the lack of such a follow-up system, many cases have been lost sight of which have ultimately developed into true cases.

DIAGNOSTIC TESTS — SPUTUM

Few dispensaries excepting those connected with out-patient departments of large general hospitals have laboratory facilities for making

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other reasons as well as for the fact that he is a positive sputum case, but this should not inhibit the furnishing of institutional care to an improvable case whose physical resistance needs building up simply because we have not detected a tuberculosis germ *on* him.

If because of our limited institutional facilities, the presence of bacilli in the sputum is made a pre-requisite for admission to these institutions, let it be frankly stated that this is done as a matter of expediency, otherwise, we shall find ourselves back in the same position that many of us have been in the past, with the patient dying on our hands for whom we could make no suitable provision because an overcareful physician refused to make a positive diagnosis without positive sputum findings.

TUBERCULIN

The tuberculin test for smaller children under four is still pretty generally relied upon in conjunction with other signs or symptoms. In adults a positive tuberculin reaction is of practically no value as evidence of the existence of an active tuberculous process. Sixty-seven dispensaries reported that they used tuberculin for the purposes of diagnosis. Twenty-six of these state that they also used it therapeutically in selected cases. Two others reported that they used it only for therapeutic purposes. Its use for treatment will naturally be considerably restricted, first by the physical condition of the patient, second, by available opportunities for subsequent continued observation.

Therapeutic Use of Tuberculin.

Some physicians deem it exceedingly unwise to use tuberculin for treatment on any case not in an institution where continued oversight of the patient can be had. Others have used it with comparative success on dispensary patients, who attend with great regularity and who are capable of being taught by the nurse to keep accurate written records of their temperature and pulse and who are willing to note all of the necessary details as to their general physical condition and habits of life in order to enable the physician to follow the case as closely as it should be followed. The psychological effect of this use of tuberculin is undoubtedly beneficial in some cases. It furnishes the motive for continuous regular dispensary attendance and the patient is stimulated and encouraged by the knowledge that he is receiving a definite form of treatment.

X-RAY

Facilities for X-ray examinations were available in only thirty-one institutions. By far the larger proportion of these, as would be expected, were found among those dispensaries connected with general out-patient departments of hospitals. Whatever value lies in the use of the X-ray depends upon an expert interpretation of the plate, which is usually diffi-

cult to obtain. An experiment tried last year by one dispensary may prove suggestive. The plan was adopted of holding a special X-ray clinic weekly. To this clinic the radiographer brought his plates and the attending physician of the tuberculosis clinic brought his patients and their clinical histories. The X-ray pictures were thus interpreted in the light of the patients' past histories and present clinical findings.

WASSERMANN REACTION

A number of dispensaries are coming to feel that more effort should be made to determine the presence or absence of syphilis in the case of patients suspected of being tuberculous. Several are using the Wassermann test on all cases where the history or symptoms suggest even a suspicion of specific infection. One dispensary is applying the Wassermann test as a routine procedure in all cases. This same dispensary has available a special fund for the purchase of salvarsan for treating such cases as may give a positive reaction. The physician in charge of this dispensary sums up very clearly his own experience in this matter and points a moral that may well be taken to heart by other dispensary physicians.

The dispensary in question has two separate services. In one, forty cases were examined with respect to their symptoms only, the Wassermann test being done when it was deemed necessary in view of the clinical picture. In the other list of forty cases who were attending the second service, the test was done routinely without regard to the history or physical signs. In the first forty selected fifteen were found positive; in the second list, twenty-one. Thus in a total of eighty cases, thirty-seven were found who gave a positive Wassermann reaction. "Given two famously depleting diseases," says Dr. Class, "such as consumption and syphilis, from the mere standpoint of economics is it not a waste of both time and money to attempt to cure a consumptive being ignorant of the fact that he is a marked syphilitic at the same time?" *

SUPERVISION OF MEDICAL WORK

When all known tests have been applied and a careful physical examination has been made, there still will remain certain cases as to whose diagnosis a genuine doubt will exist in the mind of the examining physician. He will be fortunate if he can call into consultation some physician equally trained with himself in the diagnosis of tuberculosis. In a small clinic in a small town this may not be possible. He, because of his experience, is probably better fitted to determine the diagnosis of a case than any one else. In those dispensaries having more than one physician on the staff, however, it should be a routine procedure to give all doubtful

* Medical Work of Tuberculosis Clinics." F. Morris Class, M.D., *Journal of the Outdoor Life*, Aug., 1915.

cases the benefit of an examination by more than one member of the staff. If two men disagree the medical director of the dispensary or physician in charge should be called upon to give a deciding opinion. In the case of dispensaries which are part of general out-patient departments, a routine procedure should be established of referring all doubtful cases for subsequent examination to some member of the attending staff connected with the hospital.

Necessity for Supervision.

This points again to the necessity of supervising the medical work of the physicians. We have been too apt to accept unreservedly the services of physicians willing to devote a portion of their time to dispensary work. At first, it was practically all volunteer service and a considerable part still remains so. Because of this fact it was felt to be ungracious to criticise the quality of work given. It has happened, however, that incompetent men actuated by the best of motives remain on the clinic staff for a long period. Others equally incompetent have been actuated by motives of self-interest. Again, men of real ability have slighted their work because of pressure of time or the demands of their private practice. Patients have been re-examined at irregular intervals and the record of the physician's findings has not been complete or has been omitted entirely. Any suggestion from the nurse calling attention to these shortcomings is apt to be resented by the physician. If the medical work of a dispensary is to be kept up to par, it must be done by another physician.

Co-ordinating Different Departments.

Another condition that goes hand in hand with the lack of supervision is the corresponding failure to organize properly the tuberculosis work of a given institution. This occurs especially in the larger dispensaries where there are two or more services, with physicians alternating on different days of the week. If the dispensary is part of an out-patient department, there may be a ward in the hospital available for the treatment of tuberculosis patients. There may also be a day camp connected with the institution. It would seem to need no argument to prove the advisability of co-ordinating the work of these separate divisions under one member of the staff who should be responsible for the work of each division. Upon him would devolve the responsibility of seeing that the work of the physicians was maintained at a certain standard. All doubtful cases should be referred to him for final decision, and he should approve the discharge of all patients whose physical condition is supposed to be "arrested" or "apparently cured." Assuming that he is an older man with many outside demands to meet, his time should be conserved by assembling on a certain day for his examination cases which are to be referred to him for final decision. The value of such oversight by a man who has a recognized professional standing has many advan-

tages. It not only makes for the best interests of the patient, and the maintenance of a certain standard of efficiency by the dispensary, but it undoubtedly stimulates the professional interest of the physicians working in the dispensary.

EXAMINATION OF OTHER MEMBERS OF THE FAMILY

The examination of other members of the families in which there is a tuberculous patient should be regarded as an essential part of a dispensary's work. This is often difficult of accomplishment. If these others feel well, they do not realize the necessity for such an examination and frequently refuse to consider the possibility of a tuberculous infection without definite symptoms pointing that way. No dispensary should consider that it has met its full responsibility with regard to the family until every single member shall have been examined. If any are found below par, they should be re-examined at regular intervals.

One hundred six dispensaries stated that this was done as a routine procedure whenever possible. One dispensary returned no answer. Three returned unsatisfactory answers; one, with the comment "unless requested to," another "at times," another "because patients refuse to come." Six stated definitely that such examinations were not made. One disclaimed responsibility saying that the home was visited by tuberculosis nurses from another agency. Another stated that an attempt was made, but the examination was refused. Two put the responsibility squarely up to the physician, one with the comment "lack of interest" which supposedly meant that he was unwilling to take the time and trouble for this additional work. The other was an interesting commentary on volunteer service, which in this particular instance was being given at a considerable sacrifice by the physician in question. The nurse who filled out the questionnaire stated that she hesitated to take the physician's time except for cases which were evidently suspicious.

We have mentioned before the advisability of holding night sessions for certain cases. They certainly meet the need of this particular group who may be induced to come to the dispensary for examination only so long as it does not interfere with the day's work.

RECOMMENDATIONS FOR INSTITUTIONAL CARE

In connection with the request for information as to the number of patients referred for institutional care and the number of these for whom such care was obtained, two significant facts were brought out. First, that an undue proportion of dispensaries had no record of these facts. Second, that in many instances there was a large discrepancy between the number referred for institutional care and the number obtaining it. Sixty-nine dispensaries (only 59 per cent.) gave definite figures as to the

number of cases referred for institutional care. Thirty-one returned no answer, five gave unsatisfactory replies, one stated that there was no available institution to which cases could be sent. Eighty-six dispensaries were able to make a definite statement as to the number of cases admitted to institutions during a given period. Three had no record on this point and twenty-six returned no answer. It is fair to assume that these latter also had no recorded information on this point.

There is a very decided value in having this information on hand as a check on the end results obtained by a dispensary granting that one of its chief functions is to serve as a sieve for sifting out from the patients coming under its care cases suitable for institutional treatment. Other things being equal, it may be safely assumed that the dispensary showing the greater proportion of cases for whom institutional care has been obtained is producing the best results. Comparing the number of cases referred for special care with the number for whom this institutional treatment is obtained, is a fair gauge of the adequacy of institutional facilities available and is an unquestionable argument in any campaign for increasing such facilities.

THE CLINIC AS AN EDUCATIONAL CENTER

The utilization of tuberculosis dispensaries for the special training of medical students and physicians desiring to familiarize themselves with the medical and social difficulties encountered in the handling of the large majority of tuberculosis patients is a very recent development of our original idea of the tuberculosis dispensary as an educational center. Within the past year the National Association has urged anti-tuberculosis associations and other agencies maintaining tuberculosis dispensaries to arrange for a plan of co-operation between local medical colleges and the dispensary and visiting nurse service. The student should see the average (not selected) case *in the home.* He will be greatly assisted in this regard by having the home cases interpreted through the experienced clinic physician and visiting nurse, while the recognition of the social problems involved in the handling of tuberculosis will broaden and socialize his outlook upon many other medical problems which will confront him sooner or later in the treatment of other diseases.

CHAPTER VI

The Tuberculosis Nurse

Growth of specialized tuberculosis nursing in the last decade — nurses' qualifications, professional and personal — development of work in new community — organization work — nursing bed cases.

In 1903, one of to-day's recognized leaders in the tuberculosis campaign wrote as follows: *

"It is certainly true that a woman trained in nursing who has the energy, interest and ability necessary for this kind of work, can do much more than any physician toward ascertaining the exact condition of affairs and correcting the evils existing in these homes (of tuberculosis patients). In no other way could this work be at all complete or satisfactory to the physician, to the patient, or to the community, and that these patients themselves appreciate this fact is evidenced by the warm reception given to our nurse as a friend and welcome visitor in their homes. We, therefore, consider that she is an indispensable factor in the correct solution of this problem, and as a result of her efforts we can at least say that each case thus visited is converted from a dangerous focus of infection into a source of accurate and intelligent knowledge in regard to this disease."

Growth of Tuberculosis Nursing.

Ten years ago tuberculosis nursing, like every other phase of the tuberculosis movement, was still in the pioneer stage. In the entire country, there were approximately 400 nurses doing tuberculosis visiting work, 365 of whom were engaged primarily in general visiting nursing, the tuberculosis cases they were handling occupying only a fraction of their time and attention. Some twenty-five or thirty nurses were devoting their entire time to tuberculosis work. To-day there are 825 nurses doing tuberculosis nursing exclusively, and 2,115 doing general visiting and tuberculosis nursing, a total of nearly 3,000 nurses engaged in caring for tuberculosis cases in their homes.

No figures are available as to the amount of work done in the country at large, but it would appear that New York's figures are typical of the

* "The Management and Care of Pulmonary Tuberculosis in the Dispensary." James Alexander Miller, M.D. Aug. 22, 1903.

tremendous expansion that has taken place throughout the entire United States. In 1904-1905, eighteen nurses made 12,504 visits to tuberculosis cases alone. In 1913, there were 187 nurses who made 253,842 visits to tuberculosis cases alone. During the last ten years the death rate from tuberculosis has decreased from 2.18 to 1.60 per 1,000 population.

It is true that this fall in the tuberculosis death rate cannot be ascribed to the activities of the tuberculosis nurses alone. Many other contributory factors must be recognized, such as the increased facilities for institutional care, the rapid growth of tuberculosis dispensaries, the educational propaganda carried on in season and out by anti-tuberculosis associations throughout the country, and above all the widespread increase of knowledge among all classes of people regarding the hygiene of living and the sanitation of dwellings.

Yet, not a single one of these factors reached its culminating point of usefulness until the tuberculosis nurse was called upon to concentrate her efforts upon its practical application to the lives of those who are infected with tuberculosis, or are exposed to infection through contact with those who already have the disease. Hospitals and sanatoria would go empty were it not for the persuasive powers of the nurse who frequently works days, weeks, even months, to secure an unwilling patient's consent to enter an institution, and to readjust the economic conditions of his family so as to make it possible for him to remain there.

The ratio between dispensary attendance and registered cases rises and falls with the frequency or non-frequency of the nurses' visits in the homes. Not all the educational pamphlets, illustrated lectures or moving picture shows put together "get over" like a heart to heart talk between Mrs. Brown and the nurse in Mrs. Brown's kitchen, emphasized by practical demonstrations whenever necessary.

THE TUBERCULOSIS NURSE A SPECIALIST

The genesis of tuberculosis nursing as distinct and specialized from other forms of home nursing is probably to be found in the realization by the busy district nurse doing general visiting work of her inability to carry on the intensive, concentrated, prolonged follow-up work for tuberculosis patients, which tuberculosis specialists and others particularly interested in tuberculosis work wished to have done. The greater and more obvious physical distress and needs of acutely ill patients demanded her first attention, and the ignorance, the economic and social maladjustments of the ambulant tuberculosis patient, whose physical need was not so obvious, could wait for to-morrow. The very nature of the disease, its slow progress, its duration, invited to such procrastination. The tuberculosis patient would always be there to-morrow, or the day after. In the meantime, the pneumonia, the typhoid or the infected surgical patient might die for want of immediate attention.

So a special nurse was set aside from the general staff, or an anti-

tuberculosis association engaged its own nurse to give her entire time to these tuberculosis patients, to tuberculosis nursing which is primarily instructive and supervisory work as distinguished from actual bed-side nursing. She would do this too when the occasion arose, which was seldom, for her best efforts were spent upon getting such a one into an institution whenever possible.

Nature of Nurse's Work.

With this focusing of attention upon one particular disease, methods of prevention came to rank equally in importance with methods of treatment. Persons living with tuberculosis patients were induced to visit the dispensaries for examination, suspects were kept under observation until final diagnosis could be made, children of tuberculosis patients were made special targets for continued follow-up work. The result was that a hoard of unknown cases was dug up and brought to light and the registration figures grew by leaps and bounds. In New York City in one year the number of new reported cases increased from 25,667 to 32,065. In January of that same year the number of nurses had been increased from twenty-three to 158. The education of physicians as to the necessity of reporting tuberculosis was an accomplished fact by this time. So it seems only fair to credit to the pernicious (?) activity of the nurses this very large increase in the number of reported cases. Surely it is unnecessary to call attention to the fact that this increased registration should not be interpreted as an increase in the incidence of tuberculosis. It simply means that cases already existing were discovered, located and registered so that at last we could form an intelligent idea of the size of our job and of the machinery necessary to handle it.

It has been the same story wherever specialized work in tuberculosis has been done; when the task grew too big for one nurse, another was added, and another. In many instances the burden became too heavy for private philanthropy to carry alone. The need had been amply demonstrated; the responsibility for meeting it was put squarely up to governmental agencies, with the result that in a number of municipalities and several states, tuberculosis nursing has been taken over entirely as a governmental function or else private associations are being partially subsidized to enable them to carry on the work on an adequate basis.*

QUALIFICATIONS FOR TUBERCULOSIS NURSES, PROFESSIONAL AND PERSONAL

First, with regard to the professional qualifications of a woman for tuberculosis work: It should be considered essential that she be a regularly trained and graduated nurse, having complied with the registration

* It is interesting to note in passing that the British Government has recognised a similar responsibility by making grants to local anti-tuberculosis associations from the national sickness and insurance fund, on the assumption that the support of the preventive work of these associations is a form of national insurance against tuberculosis.

requirements of the state in which she lives. This may bar out an occasional individual who seems especially fitted for the work but as a working principle its value is indisputable. It guarantees a minimum standard of professional fitness, it constitutes an undeniable claim upon the confidence of the physicians with whom she works, it establishes her position with other members of her profession who may be working in the same community, and it gives her a certain authoritative backing when dealing with the lay public. If a dispensary desires to try out the experiment of carrying on its work with a trained social worker, well and good, but if it is going to have a nurse, let it get one with a guarantee of being up to a certain standard.

Previous experience in visiting nursing and a first hand knowledge of methods of social work, while not absolutely essential, are exceedingly desirable, as is also a general familiarity with various other forms of public health work.

Her Motives.

Chief among the personal qualifications should be considered the motives inducing a nurse to take up this particular form of work. Too often one hears an applicant give as the reason for her desire to do tuberculosis nursing that she is tired of private nursing, that she is worn out from the strain of irregular hours and that she wishes to be able to call her own a certain portion of her time. Naturally one sympathizes with her feelings in the matter, but a worn-out, middle-aged woman seeking an easier job does not bring the enthusiasm, the optimism and the endurance necessary for tuberculosis work. On the other hand, a nurse who protests against the monotony, the lack of opportunity for initiative or for self-development in private nursing and who feels that tuberculosis or any other form of public health nursing offers her a wider chance for development and for service, has undoubtedly the right point of view and will in all probability prove to be a valuable worker.

Another essential personal qualification is, for want of a better word, what may be called flexibility. She must learn to be an opportunist. She will be obliged to force many a distasteful plan, many an unwanted, apparently unneeded change in a family's way of living. Results must be gotten by persuasion and by compromise, having always a sympathetic comprehension of the patient's viewpoint.

DEVELOPMENT OF WORK

According to the original source of the demand for the services of the tuberculosis nurse, depends the method of attack. If a general interest in public health work already exists, if some form of visiting nursing has already been carried on and if the employment of a special nurse to develop tuberculosis work has come as a result of a desire for more intensive care for tuberculosis cases, her task will be a comparatively easy

one. The field has been prepared, the seed has been sown and she can comfortably go to work to gather the harvest. If, on the other hand, interest in tuberculosis work has been artificially stimulated from the outside and exists only amongst a small group of people, she will be confronted with the problem not only of educating and supervising her tuberculosis patients but of finding them, and then of educating her whole community as to the necessity of caring for them adequately.

Here, again, she will have to be an opportunist and her point of attack should be along the line of least resistance. It may be the bedside care of a terminal case of tuberculosis; it may be the tracing of infection to conditions of work in the factory or shop, or the discovery of an infected milk supply which will win the first recognition of the value of her services.

Co-operation Necessary.

Co-operation must be the keynote of all her endeavors. To be intelligent and effective it must be based upon a personal relationship with individuals and a knowledge of the scope and limitations of agencies or organizations. If a nurse is going to co-operate successfully with a health board, she must be thoroughly familiar with its sanitary code. If she is going to co-operate with a social agency, she must know what the particular job is that the agency sets out to do. If she is going to co-operate with the private physician, she must know him personally and convince him of her trustworthiness. The success or failure of a dispensary may be largely decided by the attitude of the private practitioners in a community. She will have to tread most carefully to avoid pitfalls of professional jealousy on the one side without neglecting opportunities for service on the other.

ORGANIZATION OF WORK

Defining her relation to the actual work of a dispensary, it might be well to recall first, what has been many times stated to be the functions of a dispensary. First, to diagnose; second, to treat medically; third, to supervise the home; fourth, to serve as a clearing house for institutions; fifth, to educate the general public. The first two functions are clearly within the province of the physician. The home supervision and the general education will as naturally fall to the province of the nurse, while the responsibility for securing institutional treatment will fall in a large measure upon her. The physician will select suitable cases and will advise their institutional care, but in many instances the nurse not only will have to persuade the family to follow the doctor's advice but the economic and social needs of the family will render imperative some shifting and changing of home conditions so as to make it possible for the patient to leave home.

The organization of the work of a dispensary as a whole is going to

depend largely on the nurse. Organization means saving of energy, of time and of money with increased efficiency. No one factor is more important in a scheme of organization than an efficient record system which notes not only medical and social facts regarding individual patients, but also the disposition of the nurse's time and the kind and amount of work she accomplishes. *What* has been done, *when* it has been done and *for whom* it has been done should be clearly recorded in such fashion as to be available at any time for any person. The available record of her work in the homes and of conditions as she finds them will be useful to the community, to the work and to the patient himself. It is hard to convince a busy nurse that the time spent on records is not wasted time. Usually it is only after years of experience that she realizes that the busier she is, the greater the necessity for systematizing her work, and that the simplest system is to record what she has done as an evidence of what still remains undone.

As to the limitation of a nurse's work, according to her capacity to give efficient service, a more or less arbitrary standard for urban centres has been set of 100 patients per nurse. This includes both dispensary care and home supervision as well as the bedside nursing of a few stray cases. For rural districts no arbitrary standard can be stated. The amount of work possible will naturally be affected by the density of population, by the geographical features of the locality and by the transportation facilities.

KINDS OF WORK

As to technical nursing, of this, there will be very little. In the dispensary her work will resolve itself into the usual duties of a physician's assistant, taking temperature, pulse and weight and recording same, preparing the patient for physical examination by removing the clothing, amplifying and emphasizing the physician's instructions. In the homes there will be a small amount of bedside nursing necessary for cases temporarily acutely ill and for certain terminal cases who will not or cannot avail themselves of institutional care. In no instance should this bedside nursing, however, be given as a substitute for institutional care.

Education of Patients and Families.

By far the larger part of her work will be instructive and social. Infinite tact, infinite patience and infinite perseverance only will accomplish the instillation of fundamental principles of hygiene and sanitation into unwilling, uninterested, prejudiced and uneducated minds.

If she is dealing with foreign nationalities, it is extremely essential that she should understand the racial ideals and customs of the particular people with whom she is dealing. She should teach slowly and carefully, selecting one responsible member of the family. If it is necessary to use an interpreter, a practical demonstration should always be given of even

the simplest things. She should beware of trying to teach too much at one time. It has taken her months to learn what she is trying to teach and the reasons why. She cannot expect the mere telling of these things once or twice or three times to be effective.

In many of the smaller communities and rural districts the one nurse has had to do whatever came to her attention,— bedside nursing, school nursing, tuberculosis nursing, instructing expectant mothers, with incidental sanitary inspections thrown in for good measure. The universal nature of her duties was inherent in the situation, conditioned either by the smallness of the community or the difficulty of raising sufficient funds for the support of even one nurse. Many such will tell of how much more they could do in any one line of preventive work if they had only time in which to do it. Others again say that it has been much easier for them to get hold of tuberculosis patients in a new community because they came unheralded, because they came as nurses rather than as *tuberculosis* nurses. Something undoubtedly must be admitted in favor of this contention although its force dwindles in proportion to the amount of tact and resourcefulness possessed by the individual nurse.

Nursing of Bed Cases.

The amount of nursing care to be given to the so-called "bed" cases has always complicated any considerations of the home supervision of tuberculosis. According to the resources of the community these bed cases are variously disposed of either by securing institutional care for them, by referring them to visiting nurse associations for nursing care, or by the dispensary nurses themselves doing the actual nursing work necessary for these cases.

In theory we recognize two definite principles: first, that all bed cases should be in institutions; and second, that medical and nursing care should be withheld from a patient who refuses institutional care. In actual practice we have to recognize that a certain proportion of known tuberculosis cases will die in their homes. Certain other cases will be temporarily confined to bed for a longer or shorter period, according to the manifestation of acute symptoms of the disease. The furnishing of nursing care to such patients should be primarily the responsibility of the tuberculosis agency. If it is impossible to furnish this nursing care without neglecting other work, other visiting nursing agencies should be called upon to furnish this service. Frequently it will be found possible to educate some member of the family to give this nursing care so that two or three visits weekly by the clinic nurse will suffice for its supervision.

Adequate Care of Bed Cases.

If the care of these bed cases is undertaken they must be cared for adequately. Such care includes the service of the nurse who goes in to

visit them daily. It also includes visiting physicians, medicine, ordinary sick room supplies, linen, and proper nourishment. If the private physician is not available this medical care must be furnished by the dispensary, either through an arrangement for volunteer service or by requiring as a part of the regular work of the paid dispensary physician that a certain amount of time be given to field service, i.e., visiting patients in their homes upon request of the nurse. In Chicago and New York two hours weekly in the field are required of all dispensary physicians. Eighty-six of the dispensaries included in the present study stated that provision was made by the dispensary for sending physicians to visit emergency cases. Eighteen replied that no provision was made, while a few others said that such service was furnished by "city physicians." It can scarcely be expected that this medical service will be continuous. Nor indeed, if the nurse is visiting regularly, will it be necessary for the physician to pay more than an occasional visit unless an emergency arises.

Bedside Care vs. Institutional Treatment.

Eliminating those cases who may require nursing during a brief period or those for whom institutional care is not available, it may be well to emphasize the fact that nursing care should never be regarded as a substitute for institutional care. In the average tenement home, the best possible accommodations for tuberculosis bed patients are far from ideal. The whole family is exposed to the danger of infection. In other instances special accommodations for one means at least the inconveniencing and more often, the overcrowding of other members of the family. Every tuberculous case in the home means less light, less room, less food, and less clothing for the family in order that he may be properly housed and nourished, and the infection of other members of the family is a daily menace. The development of any nursing service tending to perpetuate these conditions by tacitly encouraging and making possible the staying at home of such patients is indefensible.

Another point to be considered in connection with the work of the nurses in the homes is the following up of patients discharged from institutions. The service that the nurse can render to the "arrested" cases who have returned from the sanatorium is incalculable. Many times it is the most crucial period through which the patient has to pass. The search for work, the settling back into old grooves, the continuance of habits of living essential for the physical well-being of the arrested case, make a tremendous demand on his courage. The stimulation and help which the nurse can give are invaluable in tiding the patient over this critical time.

Follow-up Work.

If follow-up work is to be done for these patients there must be close co-operation between sanatoria and the dispensaries. Formal notification should be sent to the dispensary before the patient is discharged; first

that the nurse may report back on the suitability of the home conditions to which he is returning, and the advisability of allowing him to return, and second that she may be able to take up the supervision of this home immediately upon the patient's return. It goes without saying that these patients should resume clinic attendance, not necessarily continuous, but sufficiently frequent to allow of their periodical re-examination, in order to watch for danger signals which might point to a probable recurrence of activity of the disease.

Of the 116 dispensaries studied, 84 (72 per cent.) reported that such co-operation did exist — that they were notified when patients were discharged and that such patients were followed up. Twenty-six (22 per cent.) reported that no information was received on this point from institutions.

CHAPTER VII

Social Work of the Nurse

Home supervision and social care — use of relief funds — recent tendency against specialization.

The fundamental factor in dispensary treatment of tuberculosis lies in the extension of the dispensary influence into the home by means of the visiting nurse. When a physician shall have given of his best, the work of the dispensary is only half done. In no other disease is the ultimate result so entirely dependent upon the full, persistent co-operation of the patient. You can put a broken leg in a plaster cast and harness the patient to the bed with straps and weights and pulleys and practically assure a sound well-set leg as a result of treatment. You can restrain the typhoid patient during the dangerous period of delirium and watch him carefully through the treacherous period of convalescence, because typhoid is a self-limiting disease which will terminate one way or the other within a reasonable length of time, but you can neither watch nor restrain for months or years the tuberculous patient through slow progressive stages of the disease or insure his remaining an " arrested " case by locking him up for safe keeping.

THE NURSE IN THE HOME

This education of the patient and his family to the point of doing their share, both for the patient's sake and for the sake of protecting others must be carried on by the nurses in the home. The whole family must be brought within the radius of the dispensary's influence. Other members must be convinced of the necessity for examination. New ideals of hygienic living must be inculcated and the realization of these ideals must be made possible. Medical treatment must be supplemented by social treatment in order to give the other members of the family a fighting chance. It may be necessary to effect a complete readjustment of family conditions, readjustment even to the point of dissolution. It requires insight and a quickened social conscience to sense the necessity of these readjustments; wide knowledge of social resources, experience and infinite tact to accomplish them.

Social work must go hand in hand with medical treatment if we are ever adequately to control the spread of tuberculosis. We can advise,

we can treat medically, we can visit, we can educate our patients and their families, but we must make it possible for them to put our preachment into practice by showing them how and by supplying them with the necessary means in such a way as not to weaken the fibre of their moral and spiritual being, while endeavoring to meet their social needs. This is the true social treatment of disease.

The Nurse's Social Responsibility.

Not all nurses engaged in tuberculosis work are alive to the social responsibility entailed in their handling of the families with whom they come in contact. Dr. Cabot has said that the training of a nurse is inimical to certain indispensable qualities which a social worker must possess; yet the medical knowledge which a nurse possesses is most valuable to any social worker. It is clear that if we do ignore the social factors involved our supposedly adequate dispensary control will be but a sorry jest. It is a large question whether tuberculosis nurses should be expected to carry out the detail of the social treatment of a family involving as it does so many considerations, so much time and a certain experience and training which many nurses have never had. A few there are who can qualify as social workers of the highest order, but at present the greater number will undoubtedly best serve the interest of their patients, if they call upon the trained experienced social worker to treat the social needs of the patient and his family.

Successful co-operation between social agencies and dispensaries in the treatment of tuberculous families is going to depend primarily upon two things: first, a wider, deeper conception on the nurses' part of the social aspect of disease and its consequences; second, on the getting together of the nurses and the social workers in order that any final plan of treatment may be based upon the combined knowledge and experience of both.

Naturally a nurse's responsibility as regards social work for the families with whom she is dealing will be governed by the existence or non-existence of organized agencies for social work in the particular town in which she is working. Certain forms of social work, such as mothers' meetings, special classes for selected cases, clubs for boys and girls, should be considered a legitimate part of her preventive work.

The Nurse as a Relief-Giver.

She is most unwise to undertake the administration of material relief if there are already in existence any organized relief societies. The responsibility for this work should be put squarely up to the agencies who are supposed to do it. If they are not meeting their responsibility adequately, a nurse should endeavor to convince them of their failure rather than assume the administration of any special fund to supply their deficiency.

It is quite possible, however, that in certain communities where no such agencies exist, she will be confronted with the need for relief in

families that she is caring for and has no way to meet it other than through her personal efforts. Under no circumstances should she, however, assume the entire responsibility even here. People sufficiently interested to give money or clothing or other necessities, if properly approached, will be equally interested in getting together and discussing the problems of the families they are trying to help. From this group, interested primarily in the needs of tuberculous families, there may develop a realization of similar needs elsewhere in the community and ultimately there will be a nucleus from which an organized relief agency may be formed.

As regards the giving of relief, 81 clinics replied that relief in some form was given through the agency of the clinic. Thirty-four stated that no relief was given by the clinic. In some instances the relief given was limited to milk and eggs. In others, all forms of relief were provided. Others again confined the giving of material relief to what was designated as special tuberculosis relief, that is, the providing of facilities for special sleeping arrangements including the necessary extra clothing and bedding for outdoor sleeping. In view of the rather general opinion now held as to the value of eggs and milk thus furnished, it is interesting to note that one clinic replied that this is considered as medicine and not as relief. The amount of benefit derived from two quarts of milk daily and a dozen eggs weekly is problematical when it may be assumed that the whole standard of living of many of these families is far below par and when it is well-nigh impossible to be sure that this extra nourishment is reserved solely for the use of the tuberculous patient. The amount is so small that if shared with other members of the family it is only a proverbial drop in the bucket. Undoubtedly there are certain cases to whom this form of relief is helpful — if it can be assured that they are using it themselves. Some dispensaries consider under relief the giving of sanitary supplies such as sputum cups and paper napkins. These can hardly be considered as relief. Rather they are a necessary sanitary appurtenance to the work of the clinic.

RECENT TENDENCY AGAINST SPECIALIZATION

Before closing this chapter on the nurse's work, it might be pertinent to refer briefly to a more or less recent tendency to eliminate the specialized tuberculosis nurse, substituting in her place the general public health nurse whose care will be given to all, "the lame, the halt and the blind," within her sphere of activity.

The tuberculosis movement has been the pioneer movement in public health work. The general tuberculosis educational propaganda has laid the foundation for every other form of popular health educational movement that has since developed. Fresh air, proper food, hygienic living, sanitary homes are bulwarks against a dozen other diseases besides tuberculosis. Succeeding organized efforts to attack a particular health prob-

lem have followed more or less closely the methods worked out by the tuberculosis group. Especially is this true as regards the method of using visiting nurses to do instructive work in the homes. Latterly the cry of over-specialization has gone up. The efficiency experts with their ideal of one hundred per cent. efficiency have pointed to waste due to lost motion, to the multiplication of overhead charges, to the duplication of effort and have clamored for reorganization of the various health activities, looking to their co-ordination under the general head of public health work.

Experiments in District Plan.

Experiments along this line are now being tried notably by New York City in its Municipal Health Centers and by Buffalo, Cleveland and Detroit. In Dayton, Ohio, several private organizations are working in conjunction with the local health department so that their nurses are doing all kinds of visiting nursing work within a given district. A similar plan has very recently been put into operation in Jacksonville, Fla. In theory, as a matter of organization, of administration, of one hundred per cent. efficiency, the scheme appears flawless. It is too soon to expect these experiments to prove anything one way or another. Lacking these proofs it behooves us to keep an open mind as to what the final outcome may be. One thing appears certain, whatever may be the gain to other phases of public health nursing, tuberculosis work is bound to suffer during the process of readjustment unless the nursing force as a whole be considerably increased. Other fields have not been covered so intensively. The tuberculosis nursing machinery is being used to supplement deficiencies in other phases of public health nursing with no corresponding compensation to tuberculosis work.

No one can forecast what will happen in the next ten years. The attempt has been made to sketch briefly the oscillation of the pendulum first towards specialization, now towards generalization. In this latter tendency, one fears only a step backwards as regards tuberculosis nursing unless as has been said before the machinery hitherto available for other types of visiting nursing shall be considerably increased. At least it should be brought up to a standard comparable with that considered adequate for tuberculosis work. If the attempt be made to go a step further and combine the various forms of instructive visiting nursing with district bedside nursing, one can see still further breakers ahead for the chronic tuberculosis case. Tuberculosis is still a problem. Child welfare work is not yet reduced to a rule of thumb. Mental hygiene work is still in its infancy. We have not wiped these problems off the slate, after the concentrated effort of several years. Will spreading ourselves out thinly over a variety of problems bring us any nearer to their final solution? There is such a thing as over-organization and in its way it is as bad as over-specialization. Administrative procedure has been known to choke itself with red tape. There is no such thing as one hundred

per cent. efficiency as long as the personal equation must be considered.

Possible Advantages and Disadvantages.

Granted that the scheme works, will the economic gain offset the loss of enthusiasm for a particular kind of work, the waste of particular abilities suited especially to one type of work, the lack of appealing power for public support? We are all of us specialists in life and living, in our work, in our pleasures, in our psychological response to appeals for support of a particular cause. Some few great souls see life in the circumference; but the rank and file, where most of us belong, see only that segment bounded by our personal experience and sympathies. It is the specific appeal which moves us, the particular cause which excites our enthusiasm and enlists our most strenuous efforts.

One thing is certainly true, that to-day the tuberculosis nurse goes into a community with the moral support of a great country-wide organized movement back of her, with the knowledge that certain measures have been tried and their value proved or disproved, with the stimulating realization that she is one of a great army who began to enlist a decade or more ago to fight an entrenched enemy, an army whose reverses and disappointments are hers, but whose victories are also hers.

The tuberculosis nurse has been the target for a goodly amount of criticism during the past few years. A product of the modern demand for specialization, she entered a new field of work with no special preparation of her own and no experience of others to guide her. Nurses have criticized her because she did little or no bedside nursing. Social workers have carped at her because she either failed to see the social implications of tuberculosis or saw them distorted through the lens of her medical interest. A pessimistic public, both professional and lay, have cavilled because she did not pile up brilliant results, and finally, even her patients themselves have rounded upon her because she did not come "bearing gifts" but offered them only precept and advice. Some of her difficulties are inherent in the situation itself and will disappear only when economists have either solved the problem of a fair living wage and a decent standard of living for all or else admitted the necessity of society's permanently subsidizing an irreducible minimum of the socially unfit. Other difficulties might disappear if the same effort that has been made to standardize medical practice in the diagnosis and treatment of tuberculosis should also be applied to the standardization of what is commonly known as tuberculosis nursing.

The Supreme Value of the Nurse.

As to the value of the nurse in the whole campaign, there can to-day be no dispute. We have all seen excellent medical work rendered abortive through the indifference of a nurse who failed in her follow-up work. On the other hand, we have seen indifferent medical work completely offset

by the enthusiasm and interest of a nurse who was practically carrying the entire burden and responsibility of a dispensary. In the long run, a dispensary is going to stand or fall through the character of its nursing work. The physician gives usually not more than two hours out of a busy day, two or three days in a week. The nurse gives all day and every day.

CHAPTER VIII

Cost

Difficulty of obtaining information — medical service — nursing service — other personal service — equipment — clinics in small towns — drugs, supplies, educational leaflets — attendance and drug fees.

One of the chief obstacles to be encountered when the establishment of a new dispensary is being urged in a community is the question of cost. It was very difficult to obtain from the questionnaires definite information on this score. When definite figures have been quoted the actual cost of the dispensary has been tied up with numerous other things. If maintained by the municipality, the cost of supervision and other personal service has to be shared with other health activities. Supplies may be bought in bulk for several city departments. Drugs may be bought for city hospitals as well as for dispensary distribution.

Difficulty in Getting Figures.

If the dispensary is maintained by a private association, the information regarding cost has frequently been complicated by the inclusion of salaries for executives, clerical workers, and other expenses which pertained to the office of the association rather than to a medical clinic. When the dispensary has been part of a general out-patient department, it has been practically impossible to get any definite information, as overhead charges are naturally shared by all divisions and additional costs are rarely segregated.

For the independent dispensary the cost of housing, fuel and light, are so entirely contingent on local conditions that little that is helpful can be given. A building especially designed for a tuberculosis dispensary,* a converted private residence, a vacant store, or rooms in a municipal building, rent free, may serve to house a dispensary. For obvious reasons one place above all others where a tuberculosis dispensary should not be held is in the private offices of any local physician.

The questionnaire asked for specific information regarding the total cost, subdividing this into salaries for personal service, supplies, equipment, drugs and the like. Answers submitted by forty-six dispensaries were so unsatisfactory that they could not be tabulated.

* Floor plans, showing a building especially designed for clinic purposes and devoted exclusively to the use of clinic patients, and a vacant store partitioned for similar use, are shown in the Appendix (see p. 116ff).

Difficulty in Making Comparisons — A Few Examples.

Nor is it possible to make any general comparisons of figures of cost even where the information furnished was fairly complete, because of the frequent inclusion of differing items under a similar classification. The following figures are therefore offered merely as suggestive of the possible annual cost of a tuberculosis dispensary in a town or city of a given size:

OLD TOWN, MAINE — POPULATION 9,515

Cost of Maintaining One Clinic

Rent	$180.00
Heating	20.00
Drugs & Supplies	63.81
Equipment	54.41
Stationery	19.24
Total Cost (Exclusive of Nurse's Salary)	$327.46

Volume of Work During One Year

Total Number of Patients	96
Total Number of Patients' Visits to Dispensary	554
Total Number Visits to Homes	1611

LEXINGTON, KENTUCKY — POPULATION 37,935

Cost of Maintaining One Clinic

Rent	$ 120.00
Education	149.20
Livery	88.50
Supplies	1039.90
Nurses' (4) salaries	3600.75
Other Salaries	141.00
Equipment	296.50
Drugs	117.15
Total Cost	$5553.00

Volume of Work During One Year

Total Number of Patients	208
Total Number of Patients' Visits to Dispensary	1006
Total Number Nurses' Visits to Homes	8040

GRAND RAPIDS, MICHIGAN — POPULATION 120,695

Cost of Maintaining One Clinic

Physician's Salary ($2.00 per session)	$ 490.00
Nurses' (3 to 4) Salaries	2791.12
Other Salaries	300.00
Drugs	98.28
Supplies	198.04
Rent	240.00
Total Cost	$4117.44

Volume of Work During One Year

Total Number of Patients	494
Total Number of Patients' Visits to Dispensary	1436
Total Number Nurses' Visits to Homes	7901

PITTSBURGH LEAGUE, PA. POPULATION 557,773

COST OF MAINTAINING ONE CLINIC*

Supplies	$ 705.37
Nurses' (2) Salaries	2062.50
Drugs	453.92
Other Items	1811.33
Total Cost	$5033.12

VOLUME OF WORK DURING ONE YEAR

Total Number of Patients	192
Total Number of Patients' Visits to Dispensary	3637
Total Number of Nurses' Visits to Homes	3051

CHICAGO, ILLINOIS POPULATION 2,447,045

COST OF MAINTAINING TEN CLINICS

Physicians' (35) Salaries	$20,108.31
Nurses' (45) Salaries	39,560.54
Supplies	4,414.02
Drugs	3,389.26
Other Service	10,346.67
Equipment	875.14
Total Cost	$84,363.24

VOLUME OF WORK DURING ONE YEAR

Total Number of Patients	7127
Total Number of Patients' Visits to Dispensary	52,244
Total Number of Nurses' Visits to Homes	46,183

With the exception of Pittsburgh and Chicago, the figures cover the entire cost of tuberculosis work in these communities. In Boston the tuberculosis dispensary connected with the Boston Consumptives' Hospital, which is the only specialized dispensary for the treatment of tuberculosis in that city, registered 2,455 new patients who made 10,435 visits to the dispensary in one year. The nurses' visits to and for all tuberculosis patients throughout the entire city amounted to 55,735; the total cost of this work was $35,615.42. Cleveland maintains six dispensaries which registered 2,651 new patients, making 11,062 dispensary visits. The nurses' visits to and for all tuberculosis patients throughout the entire city amounted to 44,845. The total cost of this work was $37,731, which includes the salary of the director of the Tuberculosis Division of the Department of Health.

In New York City during the same year (1914) the Department of Health maintained 17 special tuberculosis clinics who registered 13,671 new patients who made 110,800 clinic visits. The cost of this work was $96,480.00. The figures of cost for New York's privately supported tuberculosis dispensaries are not available. The figures for the amount of work done for tuberculosis patients in dispensaries and in their homes

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LEXINGTO

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GRADE III. HEAD NURSE

[illegible] 1200
[illegible] (At least one year's service in lower group) 1320

SUPERVISING NURSE

[illegible] 1440
[illegible] (At least one year's service in lower group) 1560

GRADE IV. SUPERINTENDENT OF NURSES

D 1920
C (At least one year's service in next lower group) 2100
B (At least one year's service in next lower group) 2280
A (At least one year's service in next lower group) 2400

[illegible]w York the average salary for municipal nurses doing tubercu-
[illegible] ranges from $900 to $1,980, graded as follows:

[illegible]d nurses, $900 to $1080 per annum (a $60 increment occurs in this grade, [illegible]ly but whenever the Board of Estimates appropriates additional funds [illegible]creased number of positions in the particular grade).
[illegible]pervising field nurse, $1140 to $1440 per annum (a $60 increment oc-[illegible]s before stated).
[illegible]ssistant Superintendent, $1320 to $1560 per annum (a $120 increment [illegible]g as before stated).
[illegible]perintendent, $1680 to $1980 per annum (a $120 increment occurring [illegible]e stated).

[illegible]e of Graded Salaries.

[illegible]here would seem to be no question as to the desirability of graded [illegible]ies with opportunities of promotion to supervisory positions, depend-[illegible]upon length of service, degree of efficiency and measure of respon-[illegible]ity. Opportunities for such promotion with salary increase offer an [illegible]acement for continued service to more capable nurses who will not be [illegible]racted to other fields when their training and experience has made them [illegible]re valuable and more to be desired by outside agencies. It should also [illegible] borne in mind that tuberculosis nursing makes heavy demands upon a [illegible]oman who undertakes it. There is a constant drain upon her personally [illegible]s well as professionally. The work is monotonous because of its lack of [illegible]ariety and beyond all this, there is need for unceasing vigilance in order [illegible]o insure protection against infection. The best protection is a strong physique which is dependent upon good food and comfortable living conditions. Nurses cannot maintain their strength, their health or their spirits if they are not able to live decently and comfortably, and the quality of their work will suffer accordingly.

Information was asked regarding the employment of social workers without medical training. There are apparently very few such employed in tuberculosis dispensaries. It is interesting to note that one dispensary, entirely dependent for its home supervision work on a social worker, reports a very small number of home visits, a very few children under dispensary care, and states in reply to the definite question "When one member of the family is examined and found to be tuberculous, do you examine the other members of the family?"—"If conditions warrar

From all of which it would appear that the follow-up work of this particular dispensary is below standard.

OTHER PERSONAL SERVICE

Information was asked concerning the amount of money paid for personal service other than medical such as for example special teachers for corrective exercise classes for the children, or classes in home economics for the mothers of clinic families; for non-professional workers, such as clerks, stenographers, interpreters, druggists, and the necessary help such as janitors and cleaning women. Replies from the forty dispensaries who answered this question were so varied because of the varying forms of organization that it was impossible to classify them.

EQUIPMENT

Ignorance as to the initial cost of equipment is a frequent stumbling block when the establishment of a new dispensary is suggested. For the information of those who may be interested in securing the establishment of a tuberculosis dispensary in their own community, the following figures regarding the cost of equipping an eight-room clinic housed in a converted private residence may prove helpful. The total cost of furnishing was $1,018.50, distributed as follows:

REGISTRATION ROOM		
1 Nurse's Desk	$ 22.00	
1 Record Cabinet (3,000 records)	65.00	
1 Card Index Cabinet	8.00	
1 Arm-Chair	6.00	
1 Stool	4.00	
4 Record Boxes (for current cases)	12.00	
1 Small Glass Table	12.00	
		$ 129.00
WAITING ROOM		
6 Benches	$100.00	
1 Four-Language Sign	18.00	
		$ 118.00
TWO CLINIC ROOMS		
2 Doctors' Tables	$ 30.00	
2 Nurses' Tables	44.00	
2 Examining Tables	30.00	
2 Screens and Covers	20.00	
4 Chairs	24.00	
8 Stools	32.00	
2 Scales	25.00	
Instruments	20.00	
		$ 225.00
TWO DRESSING ROOMS		
4 Clothestrees	$ 12.00	
2 Benches	33.50	
		$ 45.50

THROAT ROOM

1 Instrument Cabinet	$ 60.00	
1 Special Table	42.00	
1 Nurse's Table	22.00	
1 Arm-chair	6.00	
1 Special Chair	18.00	
1 Special Stool	9.00	
1 Immersing Bowl and Stand	12.00	
1 Coakley Light	15.00	
1 Sterilizer	12.00	
Instruments	150.00	
Compressed-Air Outfit	60.00	
		$ 408.00

DRUG ROOM

1 Drug Cabinet	$ 52.00	
1 Nurse's Table	22.00	
1 Arm-Chair	6.00	
		$ 80.00

FOR THE OUTSIDE OF BUILDING AT THE ENTRANCE

1 Brass Sign	$ 15.00	
		$ 15.00
		$1,018.50

Massachusetts Requirements.

In Massachusetts where a state law provides for the establishment and maintenance of special tuberculosis dispensaries in all cities or towns having a population of 10,000 or over, the minimum standard equipment required by the State Board of Health for these dispensaries is as follows:

A pair of accurate scales.
A desk or filing cabinet for records.
Record blanks.
Examining stools and couch or table.
Clinical thermometers.
Running water and adequate toilet facilities.
Facilities for receiving and transmitting to a laboratory sputum specimens and a supply of sputum containers for distribution.
Accessories such as:
- Paper napkins, sputum cups.
- Leaflets of direction and advice.
- Diet lists.

CLINICS IN SMALL TOWNS

Many small towns, while recognizing the necessity for providing institutional care for their tuberculosis cases and of visiting and supervising the cases living at home, have as yet failed to acknowledge the necessity for the establishment of a dispensary. In such places it frequently happens that several physicians more or less interested in tuberculosis work offer to examine, without compensation, at their offices any case who may be referred to them, their main objection to the establishment of a dispensary being that it is unnecessary in the first place, and in the second place, they have not time to devote to it. In practice the plan does not

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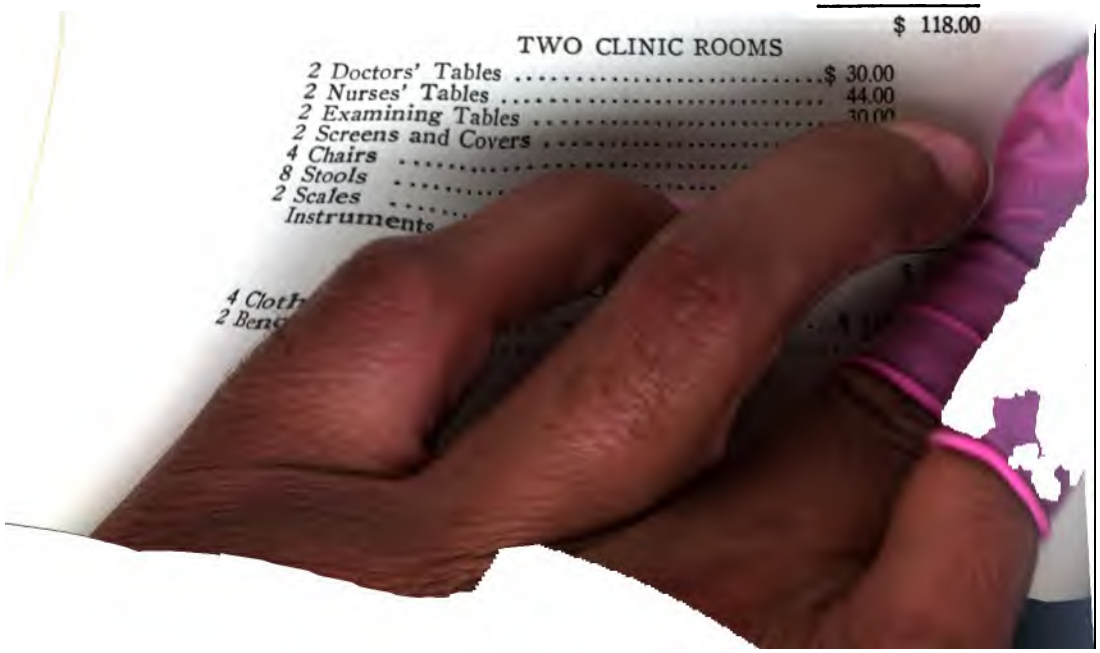

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* Two other clinics maintained by State Dept. of Health.

work. The physician may be out or he may be too busy with other cases when the patient first calls, so that frequently he has to repeat his call several times before he is examined. When he is examined the visiting nurse must call upon the physician in order that she may have an intelligent idea of the doctor's findings. No record is kept of the result of the examination and no subsequent treatment is carried out unless the patient becomes seriously ill. Undoubtedly the cost of establishing a dispensary is a deterrent factor in many instances.

Operating on a Small Scale.

A state tuberculosis secretary recently asked if she could start a dispensary with $100 which was available for this purpose if she cared to use it. There was a particular small town where a nurse was already employed, and a physician willing to volunteer his services. She was advised to go ahead, providing she could get the use rent free of the necessary rooms in the local "city hall."

A small town in New York State may be quoted as a shining example of how a dispensary may be run on "nothing a year," while the town people are being "shown how" or "why." The questionnaire stated that there was "no cost" for maintaining this dispensary — excluding, of course, the salary of the nurse. A letter accompanying this questionnaire from the nurse who filled it out is worth quoting verbatim:

"The so-called dispensary at H—— is not really a dispensary at all. The nurse has the use of two rooms as an office. Three doctors have promised to attend on Wednesdays, between 4–5 P. M. to examine patients free (those suspected of chest complaints). We have an average of two patients a week, mostly children — about 70 people have been examined in two years. No medicines are given. If a prescription needs to be filled and the patient cannot pay, the nurse pays for it from private funds given her for distribution.

"Almost all the families in H—— have their own doctor; even those who do not pay their bills, and naturally, in these cases, the nurse cannot suggest their visiting the dispensary and being examined by other doctors. Sometimes a dispensary doctor will bring one of his own patients to be examined by the other doctors. Occasionally an outside doctor will ask the nurse to care for a patient who is not paying and in that case, she persuades them to visit the dispensary if possible. Again in the case of school children, when the nurse thinks they need attention and if the parents say they will not go to the expense of taking them to a doctor, she suggests their coming to the dispensary.

"The chief function of the dispensary here is to diagnose doubtful cases and to educate patients and their families, but I think it is also of great use in stimulating the interest of the physicians in charge, in the disease; and also in gathering data which will be of interest four or five years later when many of those, now dismissed as non-tubercular, will in all probabilities develop the disease.

"Another use of the dispensary, and in my opinion the most practical use of all, is for giving warning and care to patients who are not now tubercular, but likely to develop the disease in the near future."

The implied argument for keeping good records is worth noting.

DRUGS, SUPPLIES, EDUCATIONAL LEAFLETS

Information regarding the cost of drugs, supplies and miscellaneous expenditures was furnished by a number of dispensaries, which covered

such a variety of items that here again it seemed futile to attempt any classification. The cost of drugs was given by 33 dispensaries. Three stated that no drugs were distributed.

Use of Literature.

The distribution of printed literature as a factor in the educational campaign carried on by the dispensary is pretty generally recognized. These educational leaflets may be furnished for free distribution by the local association or by the city or state department of health. Occasionally an institution may prefer to issue its own literature in which case the cost thereof properly belongs in the dispensary budget.* Practically all (103) of the dispensaries stated that such literature was distributed to their patients. In many instances where there is a considerable foreign element in the population to be considered, this literature is printed in several different languages. That it should be couched in simple language and attractive form would seem to be self-evident.

Such literature is not in any sense designed to take the place of repeated oral instructions by the nurse and physician in the dispensary or by the nurse in the home. Its function is to emphasize the salient points in such instruction. Probably its chief value lies in the fact that when taken to the home of the uneducated foreigner, it is read by the children and its teaching emphasized through their comment to their families. It is interesting to note in this connection that nurses in dispensaries having a large Jewish clientele have felt it undesirable to give out this literature as a routine procedure to all patients coming for examination. Because of the neurasthenic tendency in many people of this race, undiagnosed patients who might afterwards prove to be quite free from tuberculosis frequently become imbued with the idea that they are " cases " once they read the literature concerning tuberculosis and its treatment. Its use is therefore restricted to the definitely diagnosed tuberculous patient.

ATTENDANCE AND DRUG FEES

Few dispensaries make any charge either for treatment or for medicine. When a charge is made, ten cents is the usual amount. Ten in all stated that a fee was charged for each visit. Eighteen dispensaries charge for medicine if the patient is able to pay. The usual fee is ten cents. Five stated that the charge covered the cost of medicine. For all practical purposes dispensary treatment of tuberculosis is on a free basis. This is as it should be. Tuberculosis is a disease of long duration and the economic drain is a serious one. Not only the patient but the other members of his family should be under continuous prolonged clinical observation. The interest of the community demands this as well as the interest of the individual family. No consideration of required payment should interfere

* The National Association will gladly furnish samples of literature and estimates upon request.

with the patient's receiving necessary supervision both in the home and in the dispensary. If, after the patient is admitted to a dispensary and the nurse is familiar with the home conditions, it develops that he is able and willing to pay for continued treatment, well and good. But patients should never feel that their inability to pay is a bar to clinic attendance. This should apply to tuberculosis dispensaries which are a part of general out-patient departments as well as to independent tuberculosis dispensaries.

CHAPTER IX

Summary and Recommendations

Types of dispensaries contrasted — Functions of the tuberculosis dispensary — Relation of Anti-Tuberculosis Associations to dispensaries — Specific recommendations regarding general policy of administration, medical and nursing staff, routine clinic procedure, records, clinic facilities and equipment, clinic hygiene — Relative importance of dispensary's functions.

Tuberculosis dispensaries may be classified according to their form of organization, as

1. Independent institutions treating only tuberculosis;
2. Separate classes or divisions of out-patient departments of general hospitals.

For the independent institutions, the cost of maintenance is naturally greater. They are apt to be more adequately equipped and staffed because their needs are more evident, and they, therefore, make a stronger appeal for support to those who are interested especially in tuberculosis. Administrative detail, record systems and matters of routine procedure are usually on a higher plane.

The separate classes or divisions of out-patient departments are maintained at less cost, are less well equipped, because their demands are frequently regarded as extravagant by boards of managers who consider that lower standards obtaining in other divisions should be sufficient for the tuberculosis division. The technique of clinic procedure, record keeping and supervision is frequently poorer because in many instances it cannot be developed independently but must conform to the established procedure, good or bad, of the institution of which it is a part.

The chief advantage of clinics of this type lies in their close physical connection with clinics treating a variety of other diseases, so that tuberculosis clinic patients can be examined and treated for morbid conditions other than tuberculosis with a minimum expenditure of time and energy either by the patient or by the clinic physician and nurse. Hospital beds may also be available for the observation of clinic patients whose diagnosis is doubtful.

Functions of a Tuberculosis Dispensary.

The main elements, indispensable to any adequate dispensary control of tuberculosis, are: 1. A clear recognition of the functions of a dispensary. 2. Adequate means of fulfilling these functions. 3. Where there exists two or more dispensaries in a given locality, efficient co-ordination of their efforts by means of some central organization.

1. The functions of the tuberculosis dispensary have been stated as follows:

a. To diagnose doubtful cases;
b. To administer medical treatment;
c. To supervise patients in their homes;
d. To serve as a clearing-house for hospitals and sanatoria;
e. To educate patients and their families.

2. The efficient fulfillment of these functions depends upon:

a. An adequate staff of physicians and nurses;
b. Laboratory facilities for diagnostic tests;
c. A thorough knowledge of the district covered by the dispensary;
d. An effective follow-up system;
e. Development of the social phase of dispensary work;
f. Close co-operation with other tuberculosis agencies;
g. The keeping of accurate records.

3. A central organization, co-ordinating the work of two or more dispensaries existing in a given locality, should be based upon a district system whereby the work of each dispensary will be limited to a certain territory, and all cases living outside of this district will be transferred to the dispensary of the district within which they live.

Relation of Anti-Tuberculosis Associations to Dispensary Work.

Anti-tuberculosis associations should not regard the maintenance of a tuberculosis dispensary as their primary function. While it may be necessary to assume this responsibility in the early stages of developing tuberculosis work in a community, the burden of financial support should be shifted elsewhere as soon as it can be done with fair assurance that the quality of dispensary work will not suffer thereby. In a large city it will find plenty to do in developing and organizing the community's resources, in stimulating the public interest by carrying on an educational propaganda, in initiating and maintaining new experiments, and in serving as a medium for co-ordinating all the tuberculosis agencies in the community.

The development of the social phase of clinic work will be best accomplished through the organization of women's auxiliaries. In the smaller cities and towns, the anti-tuberculosis association may have to take the place of such a women's auxiliary. Funds raised by these auxiliaries can be used to stimulate the educational and social activities of the clinic and to maintain its standard of work by providing:

a. Supplemental salaries for expert, experienced workers, when the maximum salary would be insufficient to hold them.

b. Extra salaries for a visiting dietitian, for a clerical worker, for teachers for special groups of clinic patients, children's classes in corrective exercises, in gardening, in sewing, in cooking and the like.

c. A special fund to be used for needy clinic patients to furnish what may be called "tuberculosis relief," i.e., extra clothing and bedding for separate outdoor sleeping arrangements, for sanatorium outfits, or to provide loans for arrested cases needing to be re-established economically.

d. To maintain additional facilities for the care of children of clinic families, such as day nurseries, summer vacation homes and the like.

RECOMMENDATIONS

The following recommendations attempt to summarize briefly and definitely the comments made in the preceding chapters upon the various phases of tuberculosis dispensary work, and are based partly upon information afforded by the questionnaires, and partly upon the writer's personal experience in connection with the 29 special tuberculosis dispensaries in New York City, which are included in the membership of the Association of Tuberculosis Clinics.

General Policy of Administration.

1. All tuberculosis patients should be segregated from other dispensary patients and treated in a special class in all tuberculosis clinics operated as a part of out-patient departments of general hospitals.

2. A graduate nurse or nurses should be assigned to every tuberculosis clinic or dispensary for the purpose of maintaining supervision over the homes of tuberculous patients.

3. Clinics connected with general hospitals should endeavor to secure a few beds therein for the use of clinic patients in emergencies or while being held under observation for diagnosis, e. g., during the administration of the tuberculin test.*

4. A physician should be available to visit and treat in their homes when necessary those cases who are too ill to attend the clinic and for whom hospital care cannot be provided.

5. Children under 16 should be separated from the adult patients and treated in a special class in a separate room or at separate hours.

6. Night classes should be held for working patients.

7. "Special class" work should be introduced into all large clinics by classifying patients and treating them in separate small groups.

8. Special relief funds administered by or through the clinic should be expended only for tuberculosis relief as such — i. e., for sanatorium outfits, for clothing and bedding necessary for special sleeping arrangements, for loans to "arrested" cases to enable them to recuperate financially, for preventive work with children of tuberculous families, such as the employment of teachers for special classes in corrective exercises, dietetics, and the like, or the provision for summer outings, or vacation homes in the country.

* At the Twelfth Annual Meeting of the National Association, 1916, a resolution was adopted urging special ward provision for tuberculosis cases in all general hospitals.

9. The responsibility of the clinic should not end with the care of the individual patient but should be extended to the entire family; every member of a family in which there is a recognized case of tuberculosis should be examined, and if below par, re-examined at regular intervals — more especially should the children in these families be constantly under clinic supervision.

10. Two or more dispensaries, operating in the same community, should be co-ordinated by limiting their work on a district basis.

11. Regular provision should be made for practical co-operation with other medical institutions to secure special treatment when necessary for contributory defective conditions and for morbid conditions other than tuberculosis.

Medical and Nursing Staff.

1. *Physicians:*

(a) The adequacy of the staff of physicians should be estimated on a unit basis providing for the maximum attendance and allowing not more than five patients per hour per physician.

(b) Physicians should be salaried on a minimum basis of $300.00 per annum for eight hours weekly service, and should be available for home visitation when necessary.

(c) The medical staff should be so organized that one physician is in immediate charge who will personally supervise the medical work and be responsible therefor.

2. *Nurses:*

(a) For urban districts, the ratio of one hundred registered cases to a nurse should not be exceeded. For rural districts this ratio will depend upon local conditions of transportation, size of district and density of population.

(b) The minimum salary for nurses should be $900.00 per annum, with the allowance of one month's vacation with pay and one full day weekly, the regular working day to be not over eight hours. Two weeks' sick leave with full salary should be allowed in case of severe illness.

(c) The nursing staff should be so organized that one nurse is immediately in charge who will plan and personally supervise and be responsible for the nursing work.

(d) All supervising nurses should be affiliated with some local relief organization in order better to organize the relief work of the clinic.

Note: All nurses engaged for work in tuberculosis clinics should have had training in social work. There are Schools of Philanthropy for the training of social workers throughout the country, having special courses, which are highly desirable for nurses wishing to take up tuberculosis work.

If nurses are employed who are without training in social work, it is advisable that during the first month of their employment by the clinic, they should give a certain portion of their time to the work of one of the recognized large relief societies.

Previous experience in tuberculosis work, while not essential, is a distinct advantage.

Routine Clinic Procedure.

1. The classification of cases and results of treatment both for children and adults, as adopted by the National Association for the Study and Prevention of Tuberculosis, should be followed by every clinic physician. For his guidance. printed copies thereof should be posted in every clinic examination room.*

2. All cases should be re-examined at least once a month and the result entered on the records.

3. The sputum of every clinic case should be re-examined once a month.

4. The home of every patient should be visited at least once a month.

5. The physicians should use the nurse's report of home conditions as a basis for advising patients.

Records.

1. An adequate record system should be maintained which will record a minimum number of essential facts as follows:

(a) Identification data: — name, age, sex, nativity, color and residence.
(b) Physical data: — exposure to infection, past history and present condition, being a detailed record of the physical examination and result of special tests, sputum, urine, and other tests if made, such as blood tests, Wassermann and X-Ray (with special forms for noting physical condition of children).
(c) Social data: — make-up of family; housing, living and working conditions.
(d) Economic data: — income, expenditures, insurance, source, amount and kind of relief, if wholly or partially dependent.
(e) Continuing notes: — of observation and care at clinic and in home for patient and other members of family, by physician and nurse.
(f) Condition on discharge and final disposition.

2. Where two or more clinics are established in a given locality a uniform system of record keeping and record filing should be adopted.

3. A uniform system of recording the details of daily work, the kind and amount, should be used by nurses in order to facilitate the compiling of monthly reports.

4. A clerk should be provided in those clinics where the clerical work of the nurses interferes with their more specific nursing duties.

Clinic Facilities and Equipment.

1. *Space:*

(a) When a tuberculosis clinic does not occupy a special building used for no other purpose, it should be separated as far as possible from the other parts of the dispensary.
(b) Three rooms or the equivalent thereof, procured by the erection of temporary partitions, should be considered the minimum number essential for clinic purposes, one a waiting and registration room, two for the examination of male and female patients separately.
(c) If the clinic room or rooms are not available outside of clinic hours, another room should be available for private conferences between the social worker or nurse, and those patients needing special social care or relief.
(d) There should be separate closets, in connection with the clinic, one for

* Printed copies suitable for this purpose may be obtained from the National Association for the Study and Prevention of Tuberculosis.

physicians' and nurses' coats and one for the gowns worn by physicians and nurses and for the necessary clinical supplies.

(e) If a special room is not available for the examination and treatment of throats, a screened-off portion of the interviewing room should be fully equipped for this purpose. The use of the interviewing room, where both men and women are received, is recommended rather than either one of the examining rooms where patients may be disrobed and awaiting examination, in which case the room would not be available for patients of the opposite sex.

2. *Equipment:*

(a) The interviewing room should contain:

(1) Sink with hot and cold water;
(2) Two desks or tables (one for physician and one for the nurse);
(3) Filing cabinet for records;
(4) Scales;
(5) Extra chairs or benches for use of patients while waiting to have temperature and pulse taken;
(6) A suitable receptacle for soiled gauze or paper handkerchiefs;
(7) A metal screen.

(b) Each examining room should contain:

(1) An examination table;
(2) Chairs:
(3) Metal screens;
(4) Sink with hot and cold water.

Clinic Hygiene.

1. Tuberculosis cases while awaiting admission to the clinic rooms should be separated from the other dispensary patients, either in a separate waiting room or in a separate portion of the general waiting room.

2. In all waiting rooms for tuberculosis patients, large signs in several languages should be displayed, giving detailed information as to caring for the sputum.

3. Sputum cups or a proper substitute therefor should be furnished by each clinic to patients to take home.

4. Paper handkerchiefs for use at the clinic should be given by the registrar, clerk or nurse to each patient at the time of his admission.

5. Suitable receptacles should be provided in the waiting room and in each clinic room for soiled paper handkerchiefs.

6. No cuspidors should be used.

7. Sanitary drinking fountains or sanitary drinking cups should be provided for the use of the tuberculosis patients.

8. Furniture as well as floors should be washed daily.

9. Gowns with sleeves should be worn by physicians while on duty in the clinic rooms.

10. Nurses should wear either gowns with sleeves or washable uniforms while on duty in the clinic rooms.

11. Patients' mouths should be covered during the time they are being examined by the physicians.

12. Capes of washable material should be provided for each patient while disrobed and awaiting examination.

APPENDIX

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I. CLASSIFICATION OF CASES AND RESULTS OF TREATMENT AS ADOPTED BY THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS

1. *Incipient.* Slight or no constitutional symptoms (including particularly gastric or intestinal disturbances or rapid loss of weight).

Slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours.

Expectoration usually small in amount or absent.

Tubercle bacilli may be present or absent.

Slight infiltration limited to the apex of one or both lungs, or a small part of one lobe.

No tuberculous complications.

2. *Moderately Advanced.* No marked impairment of function, either local or constitutional.

Marked infiltration more extensive than under incipient, with little or no evidence of cavity formation.

No serious tuberculous complications.

3. *Far Advanced.* Marked impairment of function, local and constitutional.

Extensive localized infiltration or consolidation in one or more lobes, or disseminated areas of cavity formation, or serious tuberculous complication.

Apparently Cured. All constitutional symptoms and expectoration with bacilli absent for a period of two years under ordinary conditions of life.

Arrested. All constitutional symptoms and expectoration with bacilli absent for a period of six months; the physical signs to be those of a healed lesion.

Apparently Arrested. All constitutional symptoms and expectoration with bacilli absent for a period of three months, the physical signs to be those of a healed lesion.

Quiescent. Absence of all constitutional symptoms, expectoration and bacilli may or may not be present; physical signs stationary or retrogressive, the foregoing conditions to have existed for at least two months.

Improved. Constitutional symptoms lessened or entirely absent; physical signs improved or unchanged; cough and expectoration with bacilli usually present.

Unimproved. All essential symptoms and signs unabated or increased.

II. PROPOSED STANDARDS OF DIAGNOSIS OF TUBERCULOSIS IN CHILDREN AS PRESENTED BY A SPECIAL COMMITTEE TO THE DIRECTORS OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS, MAY 11, 1916 *

I. Necessary Inquiries and Determinations for the Diagnosis of Tuberculosis

History

Exposure (especially if prolonged)
Delayed convalescence from illness
Malnutrition
Underweight for height or loss of weight
Cough
Expectoration
Hemorrhage
Pain
Pleurisy
Dyspnœa
Night sweats
Digestive disturbances
Ear discharge

Constitutional Symptoms

Malnutrition
Underweight for height
Elevation of temperature, acceleration of pulse, rapid respiration
Cough
Expectoration
Hemorrhage
Pain
Pleurisy
Dyspnœa
Night sweats
Digestive disturbances

Physical Signs

Persistent and persistently localized râles.
Additional abnormal signs elicited by the usual methods of examination
Any glandular, joint bone, muscular, cutaneous, ocular, or aural abnormalities.

* Subject to slight revision resulting from public discussion at above meeting.

II. Essentials for the Diagnosis of Pulmonary Tuberculosis

1. Distinct persistent and persistently localized adventitious signs (râles) in the chest.

Location:

(a) About the nipples — that is, anywhere between the fourth and sixth ribs, the border of the sternum and the anterior axillary line.

(b) Anywhere along the border of the sternum, or in the region of the apices, as in the adults. These, however, are infrequently found.

These râles may be heard during inspiration or expiration, or after a cough. In many instances they can be elicited only by the cough.

(c) Râles limited to a considerable part or the whole of any one lobe. If these are associated with a positive tuberculin test and persist over a considerable period of time, they should be regarded as tuberculous, despite the fact that in association with enlarged tonsils or adenoids similar signs may occur. However, in the absence of any means of definitely interpreting these signs, and particularly with a history presenting evidence of exposure to tuberculosis, it is wise to give children the benefit of the doubt, and to consider them tuberculous.

2. Temperature over 99 by mouth, constant, recorded twice weekly for one month, and not otherwise explained.

3. A positive tuberculin test.

Exceptions:

In the absence of adventitious signs a diagnosis of tuberculosis may be made in the following instances:

(1) Given a positive tuberculin reaction, with an unquestioned and otherwise unexplained hemoptysis and with or without a definitely positive radiograph, the diagnosis of pulmonary tuberculosis is to be made.

(2) Given a positive tuberculin reaction in children under three or four years of age, even without constitutional symptoms, and in older children with frequent cough or rapid pulse and fever, in addition to a radiograph which shows unmistakable mottling well into the pulmonic fields without any sharp outline suggestive of calcification, a diagnosis of pulmonary tuberculosis is to be made.

Notes:

(1) Cough will be present in most instances, but its absence does not negative a diagnosis of tuberculosis when the essentials above mentioned are present.

(2) A Wassermann test should be made for all patients having a suspicious history or symptoms.

(3) No patient with fever and persistent physical signs should be considered free from tuberculosis until the tuberculin test has given a negative reaction three successive times. In the intervals patients are to be considered as " under observation."

(4) Examiners are reminded that undue importance should not be ascribed to the slight vocal intensification and respiratory modifications, or to slight alterations in the percussion note, so frequently present in children, especially at the apices, unless they are persistent.

III. Essentials for the Diagnosis of Other Forms of Tuberculosis

To determine the presence of tuberculosis there must exist: suggestive physical signs or constitutional symptoms or both (see I, page 88), negative Wassermann and positive tuberculin reactions.

Note:

(1) Some conditions of glandular enlargement, even with positive tuberculin and negative Wassermann reactions, will require the elimination, by further clinical examinations, of lymph-adenoma, adeno-sarcoma, or other adenopathies.

IV. Suspects

To determine suspects physical signs may be absent or indefinite, but there must exist one or more suggestive constitutional symptoms or items of the history (see I, page 88), and a negative Wassermann reaction.

III. ROUTINE PROCEDURE OF MEDICAL EXAMINATION

AUTHOR'S NOTE

The following description of a routine procedure to be followed in making a physical examination for tuberculosis has been prepared at the request of the writer by Dr. Bertram H. Waters, Chief of the Division of Tuberculosis of the Department of Health of New York City. Dr. Waters has been directly in charge of the Department's tuberculosis clinics and responsible for the work of the physicians attached thereto for a number of years. The inclusion of this description is not to be regarded as inferring a lack of professional ability or equipment of physicians working in tuberculosis dispensaries, but is offered in the hope that it may prove suggestive to those men who are interested in standardizing the work of these tuberculosis clinics as a whole.

The accuracy and extent of the information obtained by the physical examination of a patient depend largely upon adherence to a systematic routine procedure. Indeed, it may safely be said that this is almost as important as diagnostic ability. While an experienced examiner may be able by a few auscultations to determine and classify a well-developed tuberculous lesion, the examination is incomplete, and may entirely fail in its purpose in other instances, when the physical signs are not so clearly marked.

Some clinicians prefer to examine the patient before taking the history, in order that they may be quite unprejudiced by it in their interpretation of the physical signs. Others feel that a few minutes' quiet conference regarding the previous life and present condition serves to put the patient more at ease, and lessens the dread of the actual examination, which is of advantage to the examiner.

This is entirely a matter of opinion, but a quiet, frank discussion of the patient's condition and the best method of solving the often urgent problems which are associated with the proper disposition of every patient should not be omitted and should, if possible, be conducted in a consultation room used solely for such purposes.

The physical examination should follow carefully and *as a matter of routine* the following procedures in the order mentioned:

I. Inspection.
II. Palpation.
III. Percussion.
IV. Auscultation.
V. Mensuration.
VI. Special Examinations.

For the convenience of both the examiner and patient they both, or at least the latter, should be seated upon revolving stools, the examiner a

little higher placed than the patient, facing away from a good daylight illumination. Examinations may, of course, be made at night, but not with as much satisfaction and accuracy.

A sheer linen auscultation cloth should be used, especially for women.

The patient almost invariably will assume an *unnatural* and strained posture, throwing back the shoulders, overcoming a habitual stoop or shoulder droop, for example, and therefore should be quietly reassured and prompted to *relax*. The effect of this is often strikingly instructive.

Inspection.

A careful study, always comparing corresponding areas, will reveal:

Drooping of a shoulder, together with intercostal, infra- or supra-clavicular and infra- or supra-spinous flattening, (muscular atrophies).
Impaired and unequal respiratory excursion of the chest.
Malnutrition.
Faulty or actually defective posture (scolioses), and deformities.
Apparent anæmia.
Cutaneous lesions.
Impaired superficial circulation (venous stases) and cyanoses (lips and finger nails); often also "clubbing" of the terminal phalanges.
Dyspnœa or impaired respiration.
The cardiac impulse (apex beat).
Axillary sweating.
Irregularity of the pupils.
The condition of the tongue.
The condition of the teeth.

The impaired excursion of the diaphragm in respiration (Litten's sign) may be observed by its surface shadow, in a proper light, but this procedure is not very practical in rapid clinic work.

Palpation.

This procedure should first verify, as it may, impaired and unequal respiratory excursions of the chest. In doubtful cases the examiner should close the eyes while applying it. Likewise the drooping of a shoulder or the flattening (atrophy) of muscle groups may be further determined. These conditions as well as a state of increased tension of the scaleni and intercostals, described by Pottenger, may often be noted and are usually significant.

The position of the cardiac apex should be definitely located and the presence of any cardiac thrill noted.

The chief value of the procedure, however, is in the study of vocal fremitus. Always corresponding areas of the chest should be compared in respect to it and unless the tactile reaction of the examiner's hands is known to be equal in each, one alone should be used. Here again in doubtful examinations it is often helpful to close the eyes.

Percussion.

With the exception of auscultation, this procedure requires the greatest skill and experience both in its performance and in the interpretation of the information it secures.

The use of an artificial plexor and pleximeter is to be condemned. Preferably the middle phalanx of the second digit of the left hand should be used as the pleximeter and the second finger of the right hand as the plexor.

The stroke of the latter should be free, and from the wrist, as in striking a piano key.

For the clavicles a plexor — a metal handled rubber headed hammer — may be used.

Always corresponding areas of the chest should be percussed and compared.

In percussion of the posterior chests the patient should fold the arms clasping alternate shoulders with the palms of the hands and bending slightly forward.

The following areas should never be omitted:

The space bounded by the clavicle anteriorly, the spine of the scapula posteriorly and the root of the neck (Kronig's space).

The space, on either side between the borders of the scapulæ and the vertebral column. In children this area, the hilus of the lung, is especially important.

The axillary spaces. To expose them properly the patient should clasp the hands upon or behind the head.

The space at the bases of the lungs posteriorly, the superior and inferior boundaries of which may be established by full *held* inspiration and full *held* expiration, thus determining diminished and equal expansion of the lung.

Simplicity in the classification and interpretation of percussion tones is desirable. It is difficult and of questionable advantage to formulate others than:

(a) Normal pulmonary resonance.
(b) Impaired pulmonary resonance.
(c) Dullness.
(d) Flatness.

Auscultation.

Since this procedure elicits the most definite and assuring physical signs, it properly completes and adds finality to the impression gained by earlier procedures. For this very reason it should *not* be attempted first, as an eager novel reader turns to the last chapter, nor should its findings be accepted as diagnostic without careful methodical consideration of the findings of the other methods of examination.

Both the ear unaided and the stethoscope should be used, precisely as one uses the low and high powers of a microscope.

First with the ear alone the respiratory sounds should be studied in corresponding areas of either lung, in quiet (normal) and in deep breathing. This gives a *general* impression.

The suspicious or doubtful areas should be studied with the aid of the stethoscope, always comparing corresponding regions of either lung. It should be remembered that râles may disappear upon coughing and that those *frequently* indicating an early tuberculous lesion can *only* be elicited by and during the moment of respiration preceding or following cough.

The vocal fremitus should always be checked up by this procedure and its refined modification — whispered pectoriloquy — applied in all, but especially in early and doubtful cases.

The precordial area may reveal cardiac lesions.

Both in percussion and auscultation the chest areas studied which offer notable physical signs should be at once appropriately marked by a skin pencil, for later review.

Mensuration.

The weight should be taken and noted. The only reliable reading is the *net* or stripped weight. When this cannot be secured, supporting note should be made of the character, amount and probable weight of the clothing.

Height should be recorded at the first examination and frequently thereafter in children.

Both these items should be compared with a standard for age and sex.

For immediate special purposes, and for their bearing on diagnosis, the following procedures may be disregarded. For purposes of comparison at later examinations and record they are invaluable.

With the calipers (the ordinary pelvimeter serves perfectly well) the diameters of the chest should be taken during normal respiration as follows:

The antero-posterior between the manubrium at the level of the second rib and the spine of the fourth dorsal vertebrum.

The lateral between equivalent points in each axilla at the level of the seventh rib.

With the tape (steel, ruled in centimeters preferably) the circumference of the chest, in forced inspiration and expiration, should be taken at the same level as that of the antero-posterior diameter.

By means of the cyrtometer (lead tape) the conformation of the two chests may be traced and recorded for later comparative consideration.

Special Examinations.

These may not be essential but complete the examination.

Sputum — should always be made.

Blood — differential and complement fixation.

Urine — analytical and microscopical.

Tuberculin test. In children under five years. Von Pirquet preferably.

Examination of the nose, throat and larynx.

Wassermann test.

Radiography — desirable in all doubtful cases and furnishes a valuable reference record. For rapid general examination the fluoroscope is helpful.

This resumé is not intended to be an exhaustive treatment of the subject, but only an outline of the essential routine procedures in a proper physical examination. While in difficult cases the experience of one who has given special attention to tuberculosis work may be required for a satisfactory solution of the problems of diagnosis and management, the well trained physician who *examines* patients carefully, precisely, using all the methods available, cannot fail, as a rule, to arrive promptly and surely at a diagnosis.

IV. ROUTINE PROCEDURE FOR NURSES' WORK IN CLINIC

AUTHOR'S NOTE

The following description of a routine procedure for nurses' work in the clinic has been prepared from suggestions furnished by Miss Ellen F. Graham, a supervising nurse on the staff of the Department of Health, and Miss Gretta Jones, special staff nurse of the Association of Tuberculosis Clinics, both of whom have had wide experience in actual clinic work. It is hoped that these suggestions may prove helpful to nurses who have perhaps not realized the amount of time and energy which can be saved if their work is efficiently organized along lines of routine procedure.

1. Arranging clinic for day's work.
2. Admitting and interviewing applicants, who should be urged to come a half hour before the physician's regular hour of arrival.
3. Giving gauze handkerchiefs or oiled paper bag containing paper handkerchiefs, and printed instructions pertaining to prophylaxis.
4. Taking history and giving admission card (Form 7 L, see page 107).
5. Entry in daily journal (see page 113) name, age, address, nativity, occupation, by whom referred.
6. Entry on index card (Form 242 L, see page 108).
7. Entry on filing card for Health Department central office (File form 159 V, see page 108).
8. Giving sputum jar with instructions for use, label on jar to bear name, address, age and clinic number.

9. Weighing patients and taking temperature, recording same on clinic chart.

10. Supervising proper removal of clothing for chest examination.

11. If the diagnosis of pulmonary tuberculosis is made and followed by recommendation for sanatorium treatment, giving return card (Form 5 L, see page 107) for revisit to clinic for three afternoon temperatures, verbal instructions being given regarding observation of necessary precautions.

12. Giving jar for specimen of urine.

13. Tabulating cases on the tabulation sheet.

14. Entering diagnosis in daily clinic journal with red ink.

15. Entering diagnosis in sputum journal.

16. Entering diagnosis on index card.

17. Placing a tack in district map to show location of case.

18. Reporting case by daily report sheet (see page 109) to branch or main office of Health Department.

Patients should never be allowed to handle their clinic charts. In order to render it unnecessary for them to do so, the charts of those patients previously admitted to the clinic and examined, who are to be seen by the physician for advice and medication only, should be placed on his desk, the nurse calling these patients to the consulting room singly and in turn. The charts of patients to be examined should be placed by the nurse in the examining rooms. If she cannot be with the physician throughout the examination, she should return to the examining room at intervals for the purpose of getting these charts in order that she may advise the patient according to the physician's findings and written instructions.

The charts of all patients who have attended a given clinic session should be reviewed by the nurse before they are placed in the clinic files. Omissions will thus be noted and the following up of physician's recommendations will be insured.

V. SUPPLIES

In addition to the ordinary disinfecting fluids and materials necessary for cleansing, the following supplies may be regarded as essential for any special tuberculosis dispensary:

1. Clinical thermometers.
2. For making the Von Pirquet tuberculin test, a small porcelain tray, holding small jars of sterilized cotton, a bottle of alcohol, an alcohol lamp to be used for sterilizing scarifier, a wire loop with which to apply tuberculin, squares of gauze and a roll of adhesive plaster for dressing the scarified surface when necessary, i.e., for very young children to prevent them from irritating the wound.
3. Sputum containers (small, wide-mouthed glass bottles, preferably) for distribution to patients.
4. Facilities for packing and transmitting to a laboratory the sputum specimens for examination.
5. Gauze handkerchiefs or paper napkins with oiled or paraffine paper bags to be used as holders.
6. Sputum cups for home use.
7. Printed leaflets of direction and advice.
8. Diet lists.

VI. SAMPLE RECORD FORMS

The following sample clinic record forms are those used in the Department of Health Clinics in New York City, which have been approved by the Association of Tuberculosis Clinics as standard forms to be used in all of the clinics belonging to the Association. While it has not been possible for certain private clinics to adopt this particular form of record owing to the necessity of conforming to the established record system in vogue in the institution of which the particular clinic is a part, the printed matter thereon is practically duplicated on whatever chart or sheet is used in these latter clinics.

In addition to a complete set of clinic records covering the medical, economic and social history of clinic patients the sample forms include cards used in special files, such as index files, street files, loose leaf ledger sheets for daily journal and daily and weekly summary of discharged cases, monthly report blank; and various miscellaneous cards used for referring patients to other clinics, applications for institutional care and the like.

All of these forms have been reduced, the most of them from 5 x 8 or 3 x 5 cards.

NAME | DATE | CLINIC

AGE | No. | YR.

REFERRED BY | BOROUGH

DIAGNOSIS | STAGE | EXAM. BY

Name | Address | M. D.

ADDRESS: STREET | NUMBER | FLOOR | CARE OF

F. B.; N. S. E. W.

SEX | MARITAL STATE | COLOR | NATIVITY | OF FATHER | OF MOTHER | RELIGION

Male—Female | Married—Single—Widowed | White—Black

OCCUPATION | FORMERLY | WORKING | IN U. S. | IN N. Y. CITY | A CITIZEN

Yes—No | Yes—No

FAMILY HISTORY:

PREVIOUS HISTORY: (BREAST) (BOTTLE) FED—MEASLES—SCARLET FEVER—WHOOPING COUGH—DIPHTHERIA—TYPHOID—MALARIA—RHEUMATISM

PNEUMONIA—PLEURISY—INFLUENZA—VENEREAL DISEASE—BONES—JOINTS—GLANDS—FISTULA IN ANO.

OTHER DISEASES OR OPERATIONS

ALCOHOL | TOBACCO | DRUG HABIT | EXPOSURE TO INFECTION

To Excess—Mod.—None | Excess—Mod.—None

PREVIOUS TREATMENT: SANATORIUM | PRIV. PHYS. | CLINIC

PRESENT SYMPTOMS AND DURATION

COUGH | EXPECTORATION | CHARACTER | HAEMOPTYSIS, WHEN | ASTV.

Copious—Mod.—Scanty—None | Thick—Watery

PAIN | CHILLS | FEVER | NIGHT SWEATS | LOSS OF FLESH | OF STRENGTH

OEDEMA | MENSTRUATION | DYSPNOEA | HOARSENESS

DIGESTION | APPETITE | BOWELS

104 L—1915 | DEPARTMENT OF HEALTH, CITY OF NEW YORK—TUBERCULOSIS CLINIC HISTORY | 25-500, '15, 10,000(P)

CLINIC CARD — MEDICAL RECORD (ADULTS)

PHYSICAL EXAMINATION: TEMPERATURE | A. M.—P. M. | °F. PULSE | RESP. | HEIGHT | WEIGHT

Normal—Gain Past Year

GENERAL APPEARANCE | TYPE OF CHEST | PUPILS

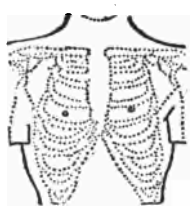
SKIN | GLANDS | FINGERS | BONES | JOINTS

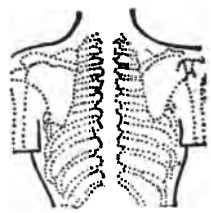
NOSE | THROAT | TONGUE | TEETH

HEART

ARTERIES | OTHER ORGANS

LUNGS





REFERRED TO ADMISSION BUREAU FOR | APPLIED AT BUREAU FOR

ADMITTED TO | SANATORIUM | DATE. DISCHARGED | DATE

CLINIC CARD — MEDICAL RECORD (ADULTS)
(Reverse Side)

CHILDREN'S CLINIC CARD

Family Name | Given Name | Date | Clinic

Sex (Male, Female) | Date of Birth | Birth Place | Child, Father, Mother | No. | Yr.

Referred by | Race | Borough

Diagnosis: 1. Tb. (Pulmonary Stage, Non-Pulm. Tb. or) | 2. Predisposed, Other Conditions | 4. Apparently Healthy

No. | Street | Floor | Apt. | Care of | School | Grade

Family History—Social: Yes. in U. S., Father, Mother | Age: Father, Mother | Occupation: Father, Mother

Tuberculosis: Parents, Relatives

Previous History: (Breast) (Bottle) Fed | Whoop Cough: Yes, No | Measles: Yes, No | Scarlet Fever: Yes, No

Pneumonia: Yes, No | Diphtheria: Yes, No | Pleurisy: Yes, No | Adenitis: Yes, No | Operations for Adenoids: Yes, No | Tonsils: Yes, No

Other diseases or operations

Exposure to Infection: Yes, No. | Where | How Long | By Whom

Present Symptoms and Duration: Cough: Yes, No | How Long | Constant | Occasional | Frequent Colds: Yes, No

Expectoration: Yes, No | Hemoptysis: Yes, No | When | Pain: Yes, No | Where | When

Fever: Yes, No | Chills: Yes, No | Bowels | Weight: Stationary, Gain, Loss | Appetite: Good, Fair, Poor

Other Symptoms

How is Time Spent After Regular School Hours: Work: Yes, No, Kind | Special School: Yes, No.

DEPARTMENT OF HEALTH — CITY OF NEW YORK

CLINIC CARD — MEDICAL RECORD (CHILDREN)

Height: | Temp. | Pulse | Resp.

Weight: No. lbs. | (below) (above) Normal

Chest: Contracted | em. expanded | em.

Configuration

Posture: | Scoliosis: Yes, No

Tbin. Test: Kind | Result

X-Ray | No.

General Appearance: | Suspicious: Yes, No

Eyes Defective: Yes, No | Ears Discharging: Yes, No

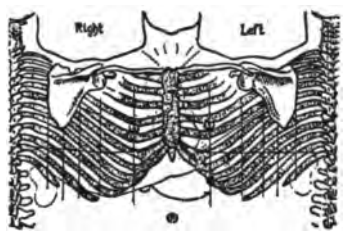
Dental Caries: Yes, No | Tonsils (enlarged): Yes, No

Imbedded: Yes, No | Obstructing: Yes, No

Adenoids: Yes, No | Defective Nasal Breathing: Yes, No | Mouth Breathing: Yes, No | High Arched Palate: Yes, No

Glands Enlarged: Yes, No | Which

Lungs:



Remarks:

Examiner | M. D. | Date

Heart: | Other Organs:

Recommended:

Parents' Consent: Yes, No | Reason

Recommendations Fulfilled: Yes, No | Which | When (date)

CLINIC CARD — MEDICAL RECORD (CHILDREN)
(Reverse Side)

NAME | DATE | CLINIC NO. BOROUGH

AGE

DIAGNOSIS: | CLASS | EXAM. BY M. D.

HISTORY: THROAT AND NOSE: ODYNPHAGIA ODYNPHONIA SENSITIVE TO TOUCH

SWALLOWING TICKLING DRYNESS DRIPPING

VOICE: DYSPHONIA APHONIA WEAK HOARSE MODIFIED

RESPIRATION: DYSPNOEA NASAL BREATHING Obstructed—Unobstructed

OTHER SYMPTOMS: DYSPHAGIA, ETC.

PREVIOUS TREATMENT

EAR: DEAFNESS PAIN RINGING OTHER SYMPTOMS

EXAMINATION NASAL CHAMBERS RIGHT LEFT

SEPTUM ACCESSORY SINUSES CHOANAE UVULA

ORO-PHARYNX NASO-PHARYNX

FAUCIAL TONSILS EUSTACHIAN TUBE LINGUAL TONSIL

LARYNX AND TRACHEA EPIGLOTTIS

ARY-EPIGLOT: FOLD Right Left INTER. ARYT.

VENT. BANDS Right Left VOCAL CORDS Right Left

ARYT. Right Left EAR

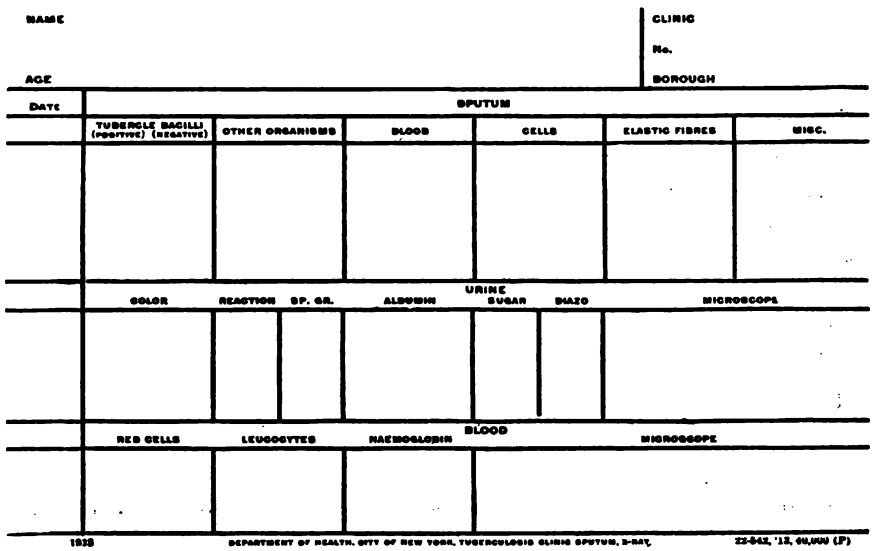
30 L—1913 DEPARTMENT OF HEALTH, CITY OF NEW YORK TUBERCULOSIS CLINIC THROAT 22-433, '13, 25,000 (P)

CLINIC CARD — THROAT AND NOSE RECORD

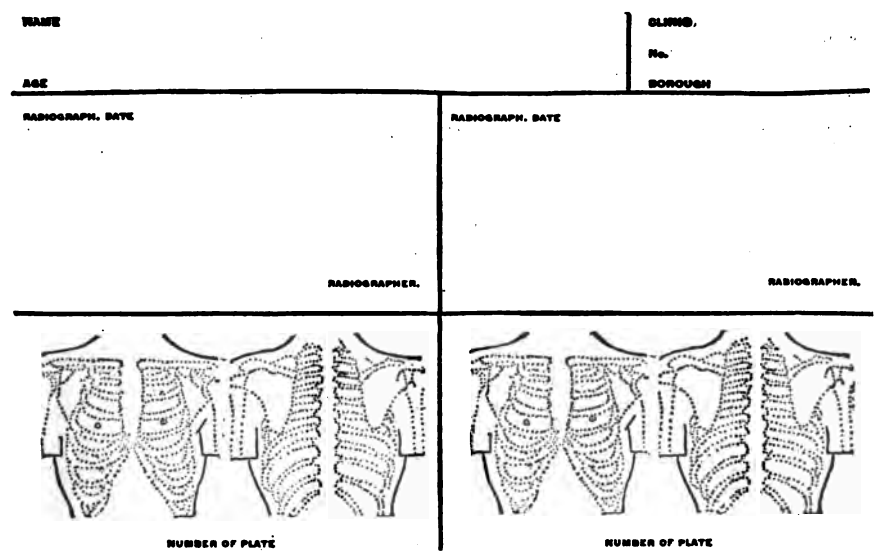
SUBSEQUENT VISITS

DATE	TREATMENT. LOCAL	TREATMENT. GENERAL	REMARKS	SIGN BY

CLINIC CARD — THROAT AND NOSE RECORD
(Reverse Side)



CLINIC CARD — RECORD OF SPECIAL EXAMINATIONS: SPUTUM, URINE, BLOOD, X-RAY



CLINIC CARD — RECORD OF SPECIAL EXAMINATIONS
(Reverse Side)

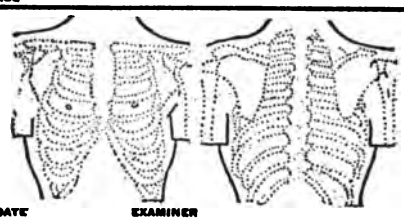
NAME

AGE

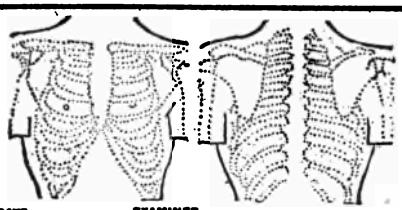
CLINIC

No.

BOROUGH



DATE EXAMINER



DATE EXAMINER

311 5—1913 DEPARTMENT OF HEALTH—THE CITY OF NEW YORK—TUBERCULOSIS CLINIC DIAGRAM 23-541, '13, 50,000 (F)

CLINIC CARD — RECORD OF SUBSEQUENT CHEST EXAMINATIONS
(Both sides alike)

NAME

AGE

CLINIC

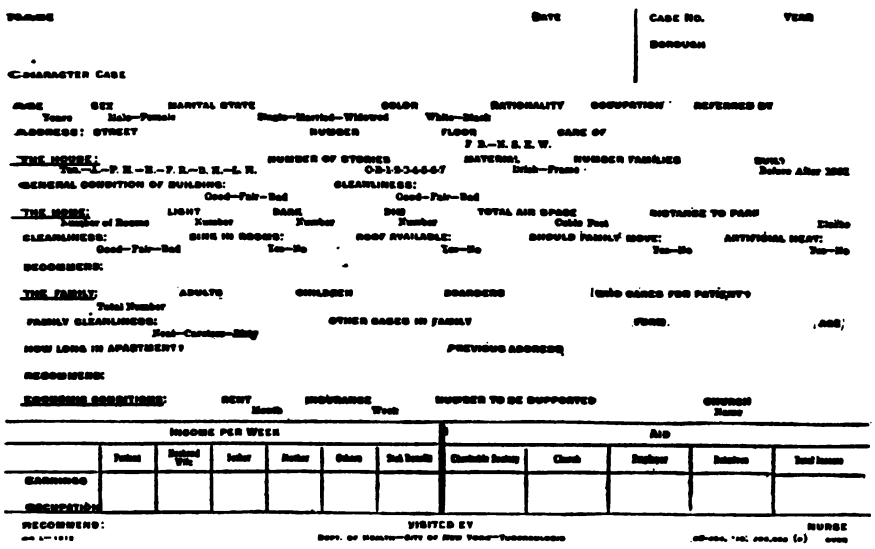
No.

BOROUGH

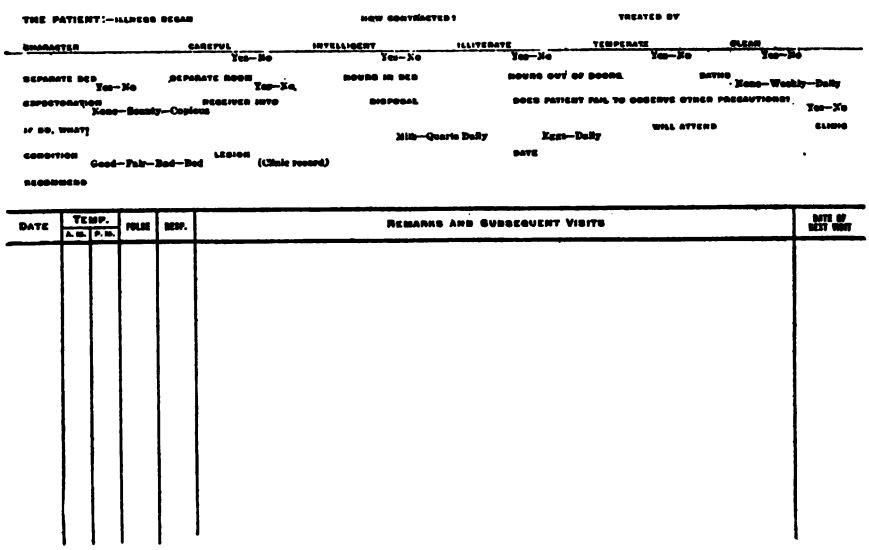
DATE	WEIGHT	TEMPERATURE A. M.	TEMPERATURE P. M.	PULSE	RESP.	TREATMENT	NEXT VISIT	REMARKS	EXAMINER

Department of Health—City of New York—Tuberculosis Clinic Later Visits.

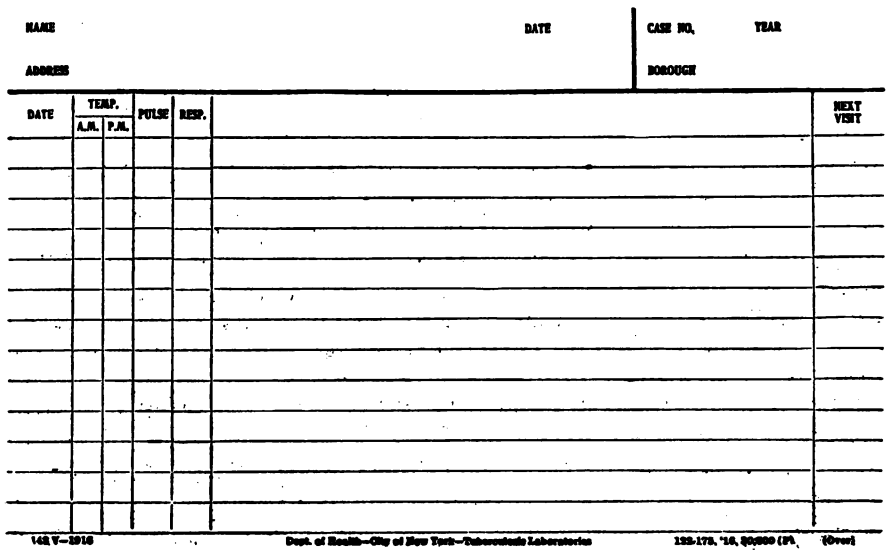
CLINIC CARD — RECORD OF SUBSEQUENT VISITS TO CLINIC
(Both sides alike)



CLINIC CARD — NURSE'S RECORD OF HOME CONDITIONS



CLINIC CARD — NURSE'S RECORD OF HOME CONDITIONS
(Reverse Side)

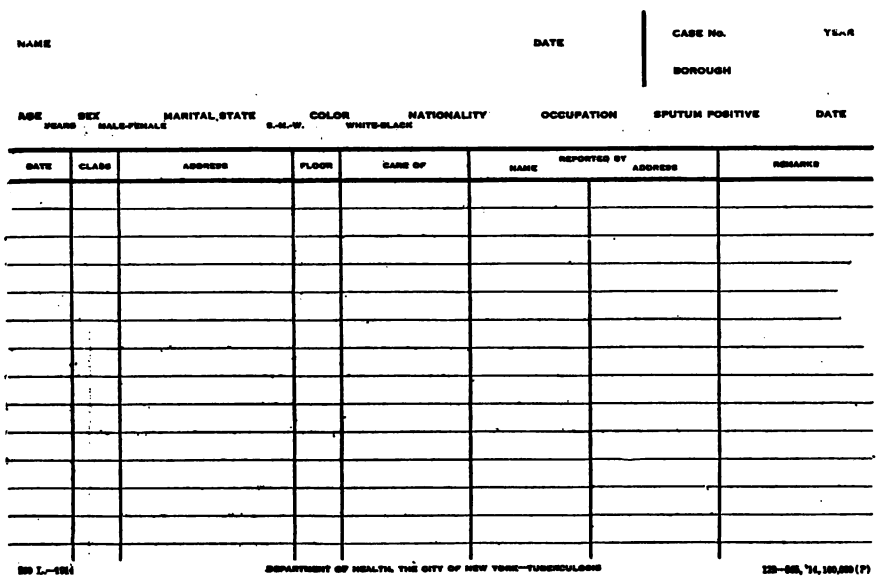

NAME DATE CASE NO. YEAR

ADDRESS BOROUGH

DATE	TEMP. A.M.	TEMP. P.M.	PULSE	RESP.		NEXT VISIT

142 V—1916 Dept. of Health—City of New York—Tuberculosis Laboratories 125-175, '16, 50,000 (P) (Over)

CLINIC CARD — NURSE'S RECORD OF SUBSEQUENT HOME VISITS
(Both sides alike)


NAME DATE CASE No. YEAR

BOROUGH

AGE YEARS SEX MALE-FEMALE MARITAL STATE COLOR W.-H.-B. WHITE-BLACK NATIONALITY OCCUPATION SPUTUM POSITIVE DATE

DATE	CLASS	ADDRESS	FLOOR	CARE OF	REPORTED BY NAME	REPORTED BY ADDRESS	REMARKS

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK—TUBERCULOSIS 125—565, '14, 100,000 (P)

ENVELOP FOR CLINIC CARDS FOR EACH PATIENT, GIVING CONTINUOUS RECORD OF PATIENT'S LOCATION AND CARE
(Both sides alike)

DEPARTMENT OF HEALTH – CITY OF NEW YORK

MAIL TWO COPIES OF THIS CARD TO
THE TUBERCULOSIS HOSPITAL ADMISSION BUREAU, 628 First Ave., N. Y. City
(CROSS OUT WORDS NOT APPLYING)

CLASS

APPLICATION FOR HOSPITAL-SANATORIUM-PREVENTORIUM

Name..... Age..... Sex—M.-F. Address..... Fl.... Apt.... Care of..... Boro.....
Name Nearest Relative..... Address..... Name of Relative at Other Address..... Address.....
Nearest Friend—Name..... Address..... Name..... Address.....
Employer's Name..... Address..... School No..... Grade.....
Race..... Religion..... Nativity..... Single-Married-Widowed-Divorced. Citizen? Yes-No.

Is U.S. ....yes; N.Y. State ....yes; N.Y. City ....yes; Father Citizen? Yes-No.
Exposure to Tuberculosis in Household. Present? Yes-No.
Past? Yes-No. How Recent?.....
Name The Individual in Household.....

ADDRESSES OF PATIENT	HOW LONG	Account for at least two years outside of Institution.
At Present Add.....		
Previous Add.....		
" "		
" "		

SOCIAL HISTORY OF APPLICANT AND FAMILY

NAME	Age	S.M.W.D.	Kinship	Occupation	Weekly Earnings	No. Months in Year Working	If Out of Work Since When?	ADDRESS

Monthly Rent Paid..... Income from Lodgers..... Weekly Aid from Charities..... Total Weekly Income.....
Resources, such as Money in Bank, Property, etc.) Yes-No. What?.....
Can Applicant Provide Outfit? Yes-No. Pay Transportation? Yes-No.
Will Any Member of Family Pay Part of Maintenance? Yes-No. How Much Per Week?..... To be paid by.....
HOUSE—Character..... Condition..... HOME—No. Rooms..... Has Patient Separate Room? Yes-No.
Should Patient be Allowed to Return Home After Leaving Hospital? Yes-No. If not, Why?.....
Remarks.....
..... Social Report Verified by..... (Nurse) Date.....

216 Y—1918 TUBERCULOSIS HOSPITAL ADMISSION BUREAU, CITY OF NEW YORK 1000, '18, 12.0(8) (P)

APPLICATION CARD FOR INSTITUTIONAL CARE: HOSPITAL, SANATORIUM, PREVENTORIUM

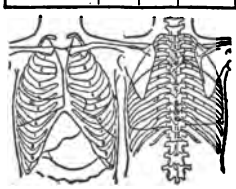
CLINICAL HISTORY

Date	Temp. A. M.	Temp. P. M.	Pulse	Resp.	Date and Result of Sputum Ex.	Von Pirquet Tuberc. Test	Urine Sugar	Urine Alb.

Duration of Illness.....
COUGH—Severe-Moderate-Absent.
SPUTUM—Copious-Scanty-None-Bloody.
Previous Weight..... When..... Present.....
Under Treatment? Yes-No. Where?.....
Prev. Treatment? Yes-No. Where?.....

HOSPITAL AND SANATORIUM CASES

Diagnosis..... Stage.....
Prognosis—Good-Bad-Fair-Ambulant-Bedridden.
Complications.....
Alcoholism? Yes-No. Drug Habit? Yes-No.
Is Applicant of self-respecting, deserving type and previously self-supporting? Yes-No.
Special Hospital Preferred.....
Remarks.....
Referred by..... M.D. Clinic Hosp.—Priv. Phy. Add..... Date.....

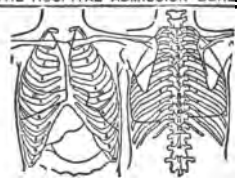


PREVENTORIUM CASES

Lungs..... Heart.....
Tonsils—Yes-No. Scalp.....
Adenoids—Yes-No. Skin.....
Cerv. Glands—Yes-No. Weight.....
Teeth—Good-Defective.
Anemic—Yes-No.
Malnutrition—Yes-No.
Exposed to Infectious Disease—Yes-No.
Remarks.....

DECISION BY THE HOSPITAL ADMISSION BUREAU

APPLICATION—Approved-Disapproved.
Referred to State Board of Charities—Yes-No.
Reason for Disapproval.....
Clinic—Physician—Notified.....
Approved on Condition of Weekly Payment of.....
To Provide Outfit—Yes-No.
To Pay Transportation—Yes-No.
Date..... Signed.....
Signed Agreement to Pay $..... Per.....
Referred to C.O.S.-A.I.C.P.-U.H.C.-B.B.C.-S.P.C.C.-Auxiliary.
Permit Issued..... for..... Adm..... Discharged..... Transferred..... to..... Died.....



Accepted-Rejected.
Reason for Rejection.....
Clinic—Physician—Notified.....
Decision Deferred.....
Reason.....
Date..... Signed..... M.D.

APPLICATION CARD FOR INSTITUTIONAL CARE
(Reverse Side)

TUBERCULOSIS CAMPS—REFERENCE CARD

NOTE—The Tuberculosis Camps receive cases of pulmonary tuberculosis in all stages.

Patients must be of good character and disposition, and residents of New York City. At the camps of the Department of Health, applicants from patients attending Department of Health Tuberculosis Clinics receive preference. All patients discontinue attendance on tuberculosis clinics while attending camp.

(Fill in and sign as indicated)

THIS CARD IS TO BE PRESENTED WITHIN THREE DAYS, AT 9 A.M., AT THE TUBERCULOSIS CAMP.....
(MIDDLETOWN, FOOT OF E 91ST STREET, MANHATTAN); (RUTHERFORD, FOOT OF NO. 2ND STREET, BROOKLYN.)

Patient's Name..... Address..... Care of.....

(LATEST RECORDS)

DATE	TEMPERATURE		PULSE	RESP.	SPUTUM	TUBERCULIN TEST	URINE	
	A. M.	P. M.					ALBUMIN	SUGAR

Clinical diagnosis and extent of lesion..... Stage.....

How long under observation.....

Present complications (if any).....

Sent from..... (Hospital) (Dispensary)

Signed..... (Attending) (Resident) Physician

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK

107 Y—1915 123-100, '15 2,000 (P)

APPLICATION CARD FOR ADMISSION TO DAY CAMP

DO NOT WRITE ON THIS SIDE. IT IS TO BE FILLED IN AT THE TUBERCULOSIS CAMP

ADMITTED.....

GENERAL CONDITION..... WEIGHT.....

PULMONARY CONDITION.....

DISCHARGED.....

GENERAL CONDITION..... WEIGHT.....

PULMONARY CONDITION.....

ARRESTED..... IMPROVED..... PROGRESSIVE.....

APPLICATION CARD FOR ADMISSION TO DAY CAMP
(Reverse Side)

MEDICAL REPORT OF CASE ATTENDING CLINIC

DATE

1. Name Address

2. Referred by Address

3. Stage of Disease: I, II, III, Ambulant, Bed, Ability to Work: Yes No.

4. General Condition: Excellent, Good, Fair, Bad Date First Visit to Clinic

5. Conditions as compared with state first observed:

Unimproved, Improved, Quiescent, Apparently Arrested, Arrested, Apparently Cured

6. Prognosis: Excellent, Good, Doubtful, Bad, Sputum: Positive, Negative

7. Extra diet now given by Dispensary (per week.) doz. eggs qts. milk

8. Recommendations:

Clinic M. D.

N.B.—These cards are for use in reporting to charitable institutions, physicians, laymen, and other enquirers. Please use classification adopted by the National Association for the Study and Prevention of Tuberculosis SEE OTHER SIDE

87-L-1913. Department of Health, City of New York, Tuberculosis 5074-13-10000 (C) (OVER)

MEDICAL REPORT ON CLINIC PATIENT — (CLASSIFICATION ADOPTED BY NATIONAL ASSOCIATION PRINTED ON REVERSE SIDE)

ALWAYS BRING THIS CARD

TUBERCULOSIS CLINIC

Address

Borough of

Name

Address

Date 191 No. Floor

Days Hours

DEPARTMENT OF HEALTH, CITY OF NEW YORK.—TUBERCULOSIS

2 L—1913 22-381, '13, 25,000 (F)

CLINIC ADMISSION CARD

Penalty for False Representations.

Section 570, Chapter 80, Consolidated Laws.—"Any person who obtains medical or surgical treatment on false representations from any dispensary licensed under the provisions of this act, shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than ten dollars and not more than two hundred and fifty dollars, or imprisonment until fine be paid may be imposed. Code Crim. Pro. 1 (78.)

Keep card clean. Come only on appointed days and hours. Come alone, if possible.

Halte diese Karte sauber. Komme nur an den vorgeschriebenen Tagen und Stunden. Komme allein wenn irgend möglich.

Tenete questa carta pulito. Venite soltanto al giorno ed all'ora fissi. Venite solo se possibile.

CLINIC ADMISSION CARD
(Reverse Side)

ALWAYS BRING THIS CARD

TUBERCULOSIS CLINIC Borough

Address

Number and Year Date

To return 10 A.M. 2 P.M.

For

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK

3 L—1913 4400, '13, 2,500 (F)

RETURN CARD — GIVEN TO PATIENTS RECOMMENDED FOR SANATORIUM CARE, WHO MUST REVISIT CLINIC FOR TEMPERATURE OBSERVATION
(Reverse side blank)

TAKE THIS CARD TO

CLINIC

Street

Morning Clinic from to

Afternoon Clinic from to

Night Clinic from to

Children's Clinic from to

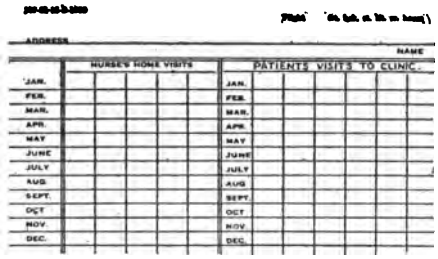
WHERE YOU WILL RECEIVE TREATMENT.

This is the Tuberculosis Clinic of your district.

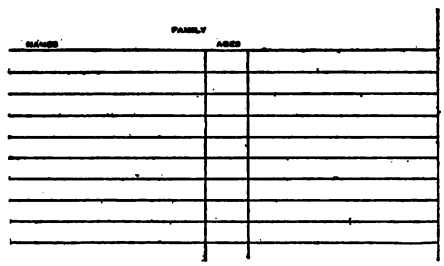
DEPARTMENT OF HEALTH, THE CITY OF NEW YORK.—TUBERCULOSIS

141 L—1913 22-427, '13, 26,000 (F)

TRANSFER CARD — GIVEN TO PATIENTS LIVING IN ANOTHER DISTRICT



STREET FILE CARD — SHOWING NURSE'S VISITS TO HOME AND PATIENT'S VISITS TO CLINIC



STREET FILE CARD — (REVERSE SIDE) SHOWING OTHER MEMBERS OF FAMILY

Name_____ No._____ Year 191____

Address_____ Floor_____

Age_____ Occupation_____

Institution_____

Discontinued_____

Readmitted_____

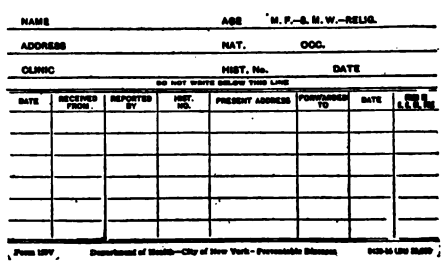
Transferred_____

Not found_____

Discharged_____

DEPARTMENT OF HEALTH—TUBERCULOSIS CLINICS

NAME INDEX FILE CARD — USED IN CLINIC



NAME INDEX FILE CARD — USED IN HEALTH DEPT'S FILE AT CENTRAL OFFICE

DAILY TUBERCULOSIS REPORT TO BOROUGH OFFICE

Clinic District_____ **Date**_____ **191**

From_____ **Branch Office**_____ **Borough**

Class		Name	Sex	Age	Address and "Care Of"			Number	Yr.	Remarks	Entered At	
Old	New				Old	New	Floor				CL.	B. O.

REPORT FORM — USED FOR DAILY REPORTS TO HEALTH DEPARTMENT HEADQUARTERS

SERIAL NUMBER

BOROUGH

NUMBER STREET

NUMBER OF STORIES 0-0-1-2-3-4-5-6-7 MATERIAL BRICK-FRAME NUMBER FAMILIES BUILT (BEFORE) (AFTER) 1901 TOTAL CASES PRIOR TO 1910 CHARACTER HOUSE GOOD-FAIR-BAD TEN., A., P.H., H., F.H., S.H., L.H.

	DATE	NAME OF CASE	AGE	DISEASE CASE NUMBER	YEAR	LOCATION OF ROOMS	NUMBER OF ROOMS	IN HOUSE SINCE	DISINFECTION			DATE LEFT HOUSE	MOVED TO RECOVERED TO HOSPITAL	DATE OF DEATH	TERMINATION DATE
									BED ML.	APT.	BDG'S				
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															

109 Y—1916 DEPARTMENT OF HEALTH, THE CITY OF NEW YORK. HOUSE RECORD 123-164, '16, 50,000 (P)

HOUSE FILE CARD — USED BY HEALTH DEPARTMENT TO SHOW LOCATION OF CASES ACCORDING TO RESIDENCE THUS GIVING TUBERCULOSIS HISTORY OF HOUSE

BRANCH OFFICE WEEKLY REPORT

BUREAU OF PREVENTABLE DISEASES

TUBERCULOSIS

DATE ..... 191.... BRANCH OFFICE ..... BY .....

New Living Cases Reported During Week		Deaths of Cases not Previously Reported	
Total Cases in Register, Preceding Week		Forcible Removals	
Total Cases Added to Register		Total Visits by Physicians	
Total Cases Removed from Register		Cases Under 5 Years of Age	
Total Cases in Register, Present Week		Cases Between 5 and 16 Years	
Under Care of Private Physicians		Cases Under Sanitary Supervision	
Clinics, Manhattan, Non-Department Only		Renovations Ordered	
In Hospital		Voluntary Renovations	
Out of Town			
Not Found			
At Home and Department Clinics			

147 Y—1916 DEPARTMENT OF HEALTH, CITY OF NEW YORK, PREVENTABLE DISEASES. 123-176, '16, 2,500 (P)

REPORT FORM — USED FOR WEEKLY REPORT TO HEALTH DEPARTMENT HEADQUARTERS

Department of Health
Preventable Diseases
City of New York

MONTHLY TIME REPORT

Form No. 4. Mis.
96-'16-5,000 (N)

Name _____ Title _____

Address _____ Office _____

DUTIES _____

YEAR / MONTH / DAY	These Four Columns for Time at Office only. A. M. ARR.	A. M. DEP.	P. M. ARR.	P. M. DEP.	Time on Field Duty	Total Time on Duty	New Cases Seen	Old Cases Seen	Phys. Exams.	Other Exams.	Field Visits
1											
2											
3											
4											
5											
6											
29											
30											
31											

Total Time for Month
Total Required Time for Month

Total Time Since January 1st
Total Required Time Since January 1st

PHYSICIANS' MONTHLY REPORT OF TIME SPENT AND WORK DONE

All Time on Duty Spent Away from Office with Address and Inclusive Hours to be Entered Below. Enter Total in Column on Reverse.

Day of Month	
1	
2	
3	
4	
5	
6	
29	
30	
31	

I Hereby Certify that the Foregoing Record of Services Performed by Me is Correct.

_____ 191_

Date Submitted

_____

Signature

Examined as to Genuineness of Signature and Approved for Record.

_____ 191_

Date Received at Headquarters

_____

Signature

PHYSICIANS' MONTHLY REPORT (Reverse Side)

DAILY REPORT 191 OF NURSE

CLINIC DISTRICT BOROUGH

NAME	ADDRESS	HOUR VISITED	NATURE OF CASE AND RESULT OF VISIT

(200 L—1913) DEPARTMENT OF HEALTH, THE CITY OF NEW YORK—TUBERCULOSIS 22-562, '13, 50,000 (P)

NURSES' DAILY REPORT OF TIME SPENT AND WORK DONE

NAME	ADDRESS	HOUR VISITED	NATURE OF CASE AND RESULT OF VISIT

This is to certify that I have performed the work described on this Report, on this date and at the time indicated.

(Nurse)

DAILY SUMMARY—TOTAL HOURS ON DUTY CLINIC DISTRICT BRANCH OFFICE

New Cases	Old Cases	Bedside	Extra Visits	Total Cases Under Supervision	Postponements of Practices	Consultations	Voluntary Examinations	Disinfection not Necessary	Bedding to be Disinfected	Furniture Removals	Tuberculosis Clinic	

NURSES' DAILY REPORT
(Reverse Side)

220 V —1216

DAILY CLINIC JOURNAL

DATE_____ 191

NEW PATIENTS

NUMBER	NAME	ADDRESS	CARE OF	BOROUGH	AGE	M.S.W.	SEX	COLOR	RELIGION	

DAILY CLINIC JOURNAL SHEET — TO BE USED IN LOOSE LEAF LEDGER

113

NAME OF CLINIC_____

	M	F	TOTAL
NEW PATIENTS, - - -			
OLD PATIENTS, - - - -			
TOTAL FOR THE DAY,			

OLD PATIENTS

	NATIVITY	OCCUPATION	TRANSFERRED FROM	REFERRED BY	DIAGNOSIS AND FINAL DISPOSITION	NUMBER AND YEAR	UNDER 16	SEX	NUMBER AND YEAR	UNDER 16	SEX	NUMBER AND YEAR	UNDER 16	SEX

DAILY CLINIC JOURNAL SHEET
(Reverse Side)

Weekly and Monthly Report Record

DATE	Journal	Index	History Number	NAME	Age	READMITTED		DISCONTINUED OR DISCHARGED		REASONS FOR DISCONTINUING OR DISCHARGING PATIENTS														
						Tuberculous	For Diagnosis	Tuberculous	Not Diagnosed	Unwilling	Too Feeble	Transferred	Not Tuberculous	Working	Not Found	In Hospital	In Sanatoria	Moved	Left City	In Other Care	Apparently Cured	Arrested	Apparently Arrested	Died	

WEEKLY AND MONTHLY REPORT RECORD SHEET — TO BE USED IN LOOSE LEAF LEDGER

266 V—2015

Name of Clinic.....

	DURATION OF TREATMENT								CONDITION ON ADMISSION						CONDITION ON DISCHARGE FOR PATIENTS UNDER CARE ONE MONTH OR MORE									Positive Sputum Patients Under Care 1 Month or More	RECOMMENDED						PERSONS EXPOSED TO INFECTION		Total Daily Deaths in District
	Once	Less than 1 Month	1 to 3 Months	3 to 6 Months	6 Months to 1 Year	1 to 2 Years	2 to 3 Years	3 Years and Over	Incipient	Moderately Advanced	Far Advanced	Doubtful	Not Tuberculous	Non-Pulmonary	Apparently Cured	Arrested	Apparently Arrested	Quiescent	Improved	Unimproved	Died	Not Tuberculous	Undiagnosed		Hospital	Sanatorium	Day Camp	Preventorium	Charitable Aid	Auxiliary	Adults	Children	

WEEKLY AND MONTHLY REPORT RECORD SHEET
(Reverse Side)

ASSOCIATION OF TUBERCULOSIS CLINICS

OF THE CITY OF NEW YORK

REPORT OF THE

_____ Clinic for the Month of _____ 191

Patients Receiving Treatment (Positive, Undiagnosed and Non-tb.)	ADULTS	CHILDREN	TOTAL
Cases in Current Files 1st of Month			
New Cases			
Old Cases Re-Admitted			
Total			
Patients Discharged (Positive, Undiagnosed and Non-tb.)			
Patients Remaining in Current Files Last Day of Month (Positive, Undiagnosed and Non-tb.)			
Undiagnosed and Non-tb. Cases in Current Files Last Day of Month			
Visits of Patients to Clinic During Month			
Persons Exposed to Infection in Families of Positive Cases			

	PRIMARY	SUBSEQUENT	SOCIAL	NURSING	TOTAL
Nurses' Visits (To or for clinic patients) Homes Visited					
Nurses' Visits (To or for clinic patients) Patients Seen					

*Nurses' Visits (tb) Dist. _____ (To or for patients not under clinic care) Homes Visited _____ Patients Seen _____ Dist. _____ Homes Visited _____ Patients Seen _____ Dist. _____ Homes Visited _____ Patients Seen _____ Dist. _____ Homes Visited _____ Patients Seen _____

Amount of Nurses' Time Spent for Visiting Work _____ Clinic Work _____ Clerical Work _____

Patients Referred by Non-Association Hospitals and Dispensaries _____ Patients Receiving Extra Diet _____

Number of Families Under Clinic Care _____

Patients Discharged

REASONS FOR DISCHARGE

Unwilling _____ Too Feeble _____ Transferred _____ Not Tb. _____ Working _____

Not Found _____ In Hospital _____ In Sanatoria _____ Moved _____ Left City _____

In Other Care _____ Ap. Cured _____ Arrested _____ Ap. Arrested _____ Died _____ Total _____

DURATION OF TREATMENT

Came Once _____ 2-29 Days _____ 1 to 3 Mo. _____ 3 to 6 Mo. _____ 6 Mo. to 1 Yr. _____

1 to 2 Yrs. _____ 2 to 3 Yrs. _____ 3 Yrs. and over _____ Total _____

STAGE OF DISEASE AT TIME OF ADMISSION:

Incipient _____ Moderately Advanced _____ Far Advanced _____ Doubtful _____ (Cases discharged "undiagnosed")

Not Tuberculous _____ Non-Pulmonary _____ Total _____

CONDITION ON DISCHARGE: (Patients under treatment 1 month or more)

Apparently Cured _____ Arrested _____ Apparently Arrested _____ Quiescent _____

Improved _____ Unimproved _____ Died _____ Not Tb. _____ Undiagnosed _____ Total _____

NUMBER OF PATIENTS HAVING HAD POSITIVE SPUTUM _____ (Include only discharged cases under treatment 1 mo. or more)

Registered Cases in District Last Day of Month

Positive Clinic _____ At Home _____ Private Physician _____ Hospital _____

O. O. T. and Sanatoria _____ Not Found _____ Total _____

Died During Month _____

Social Work: (Club meetings, classes, etc.) _____

_____

_____

_____

_____ *Nurse.*

* This information to be obtained by Health Dept. Clinics from Branch Office.

MONTHLY REPORT FORM — USED BY CLINICS IN REPORTING TO EXECUTIVE OFFICE OF ASSOCIATION OF TUBERCULOSIS CLINICS

VII. SIGN FOR CLINIC WAITING ROOM

The following sign in four languages, English, Yiddish, German and Italian, is displayed in a conspicuous place in all of the waiting rooms of the Department of Health Clinics in New York City.

When You Cough, Hold the Paper Handkerchief given you before Your Mouth, use it also for wiping your Mouth or Nose after Spitting or Sneezing. Do not spit on the floor or in anything except the paper handkerchief, which is then to be put in the Paper Bag and not used again. Men are forbidden to smoke or wear their Hats while in the clinic.

ENGLISH TEXT OF SIGN DISPLAYED IN NEW YORK HEALTH DEPARTMENT CLINICS
(Reproduced in Italian, German and Yiddish on same sign.)

VIII. FLOOR PLANS

The following floor plans represent actual clinics in New York and Chicago and are offered as suggestions to those interested in establishing new dispensaries.

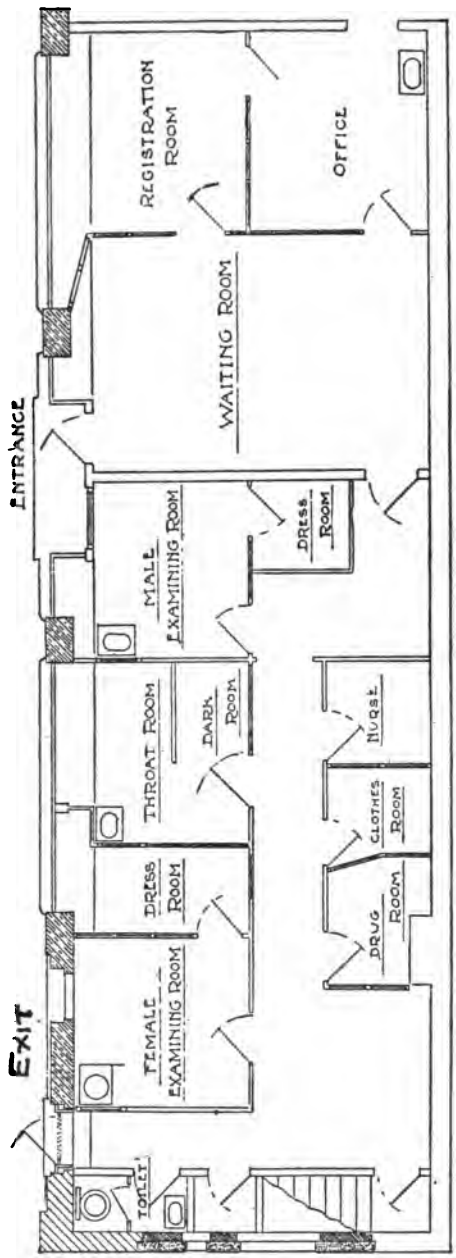


FIG. 1.— FLOOR PLAN OF A HEALTH DEPARTMENT TUBERCULOSIS CLINIC MADE BY PARTITIONING A STORE, N. Y. CITY.

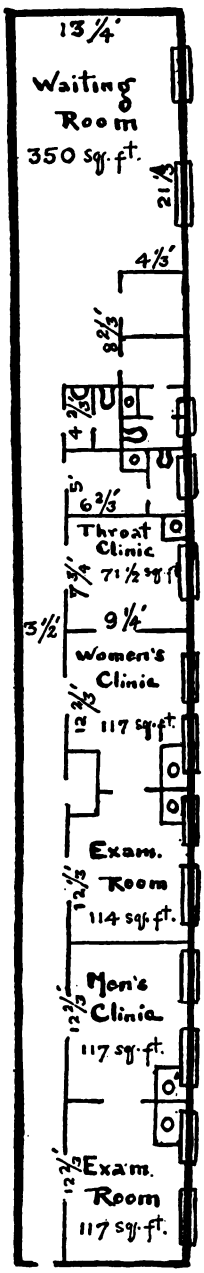
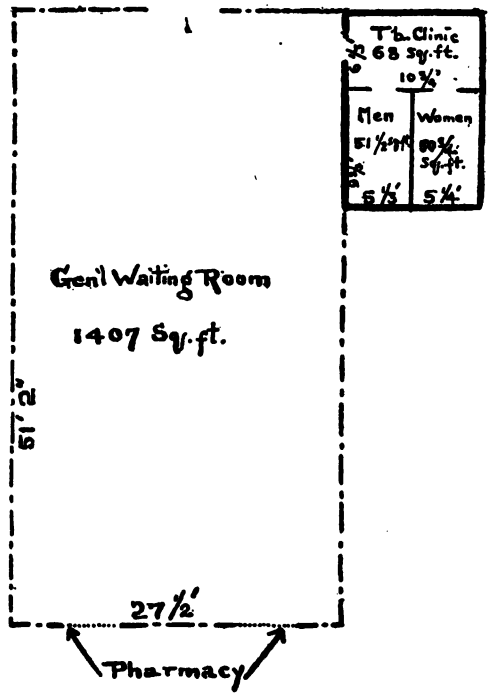
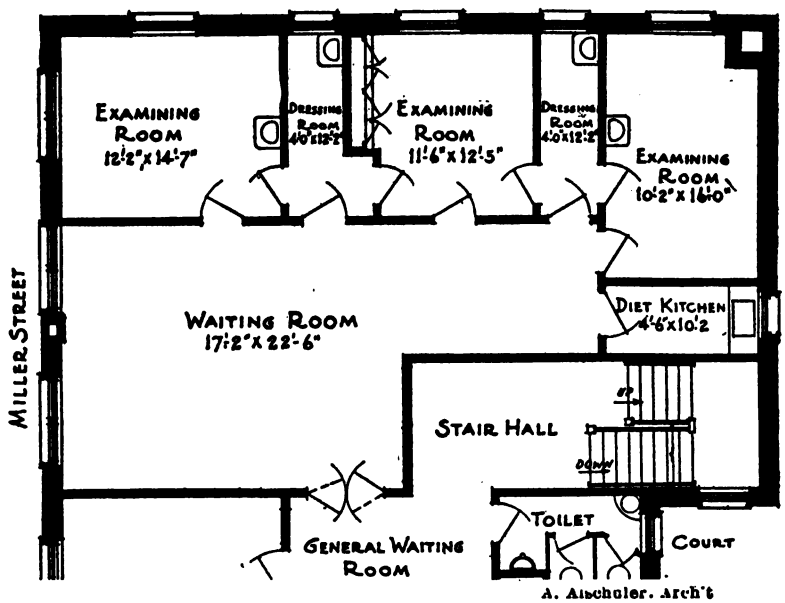


FIG 2.— FLOOR PLAN OF GERMAN HOSPITAL TUBERCULOSIS CLINIC BUILT ESPECIALLY FOR CLINIC PURPOSES, N. Y. CITY.



FLOOR PLAN OF THE FORMER NEW YORK DISPENSARY SHOWING ALSO THE GENERAL WAITING ROOM, N. Y. CITY.



FLOOR PLAN OF ONE OF THE TEN MUNICIPAL TUBERCULOSIS DISPENSARIES, CHICAGO, ILL.

IX. SELECTED BIBLIOGRAPHY FOR TUBERCULOS NURSES *

Nurses' Papers on Tuberculosis, Bulletin No. 1. Municipal Tubercul Sanitarium, Chicago, Ill.

The Tuberculosis Nurse, Her Functions and Qualifications, Ellen N. Motte, R.N. G. P. Putnam Sons, New York.

Visiting Nurse Manual, Edna L. Foley, R.N. Visting Nurse Asso tion, 104 South Michigan Avenue, Chicago, Ill.

Social Work in Hospitals, Ida M. Cannon, R. N. Survey Associa Inc., 112 East 19th Street, N. Y. City.

Lectures on Tuberculosis to Nurses, Olliver Bruce. Paul B. Hoeber, East 59th Street, N. Y. City.

Public Health Nurse Quarterly (Special Anti-Tuberculosis Numbe April, 1914, October, 1909–'10–'11–'12–'13–'14–'15. National ganization for Public Health Nursing, 612 St. Clair Avenue, Cl land, O.

Consumption: What It Is and What to Do About It, John B. Hav 2nd., M.D. Small, Maynard & Co., Boston, Mass.

Tuberculosis Directory (1916). National Association for the Study Prevention of Tuberculosis, 105 East 22nd Street, N. Y. City.

What You Should Know About Tuberculosis. National Association the Study and Prevention of Tuberculosis, 105 East 22nd Str N. Y. City.

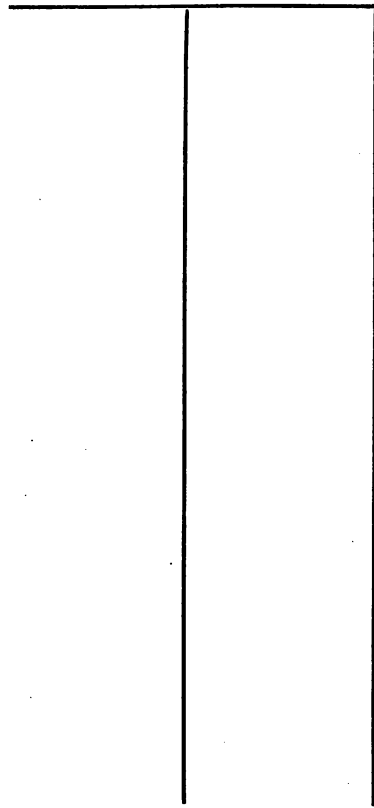
Organization and Administration of Public Health Nursing, Mary Gardner, R. N. In Preparation.

Facts About Tuberculosis, Lilian Brandt. New York School of Phil thropy, 105 East 22nd Street, N. Y. City.

* Any of these books may be ordered from the *Journal of the Outdoor* 289 Fourth Avenue, New York.

LANE MEDICAL LIBRARY

To avoid fine, this book should be returned on
or before the date last stamped below.



Gaylord Bros.
Makers
Syracuse, N. Y.
PAT. MAR. 21, 1906

L309 Crowell, F.E. 9395
A1C9 Tuberculosis dispen-
1916 sary method and proce-dure.

NAME	DATE DUE